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FIG. 1

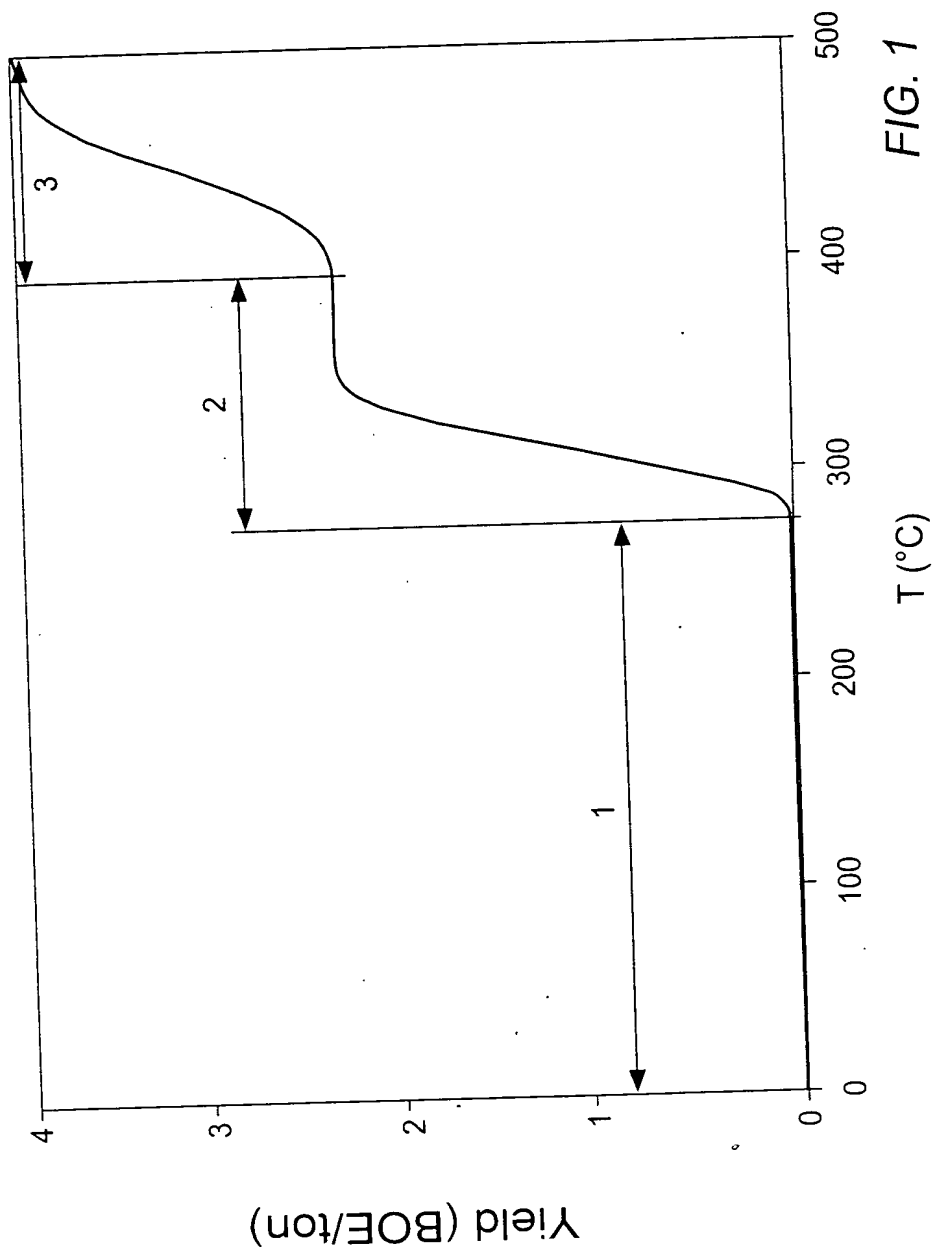


FIG. 1

FIG. 2

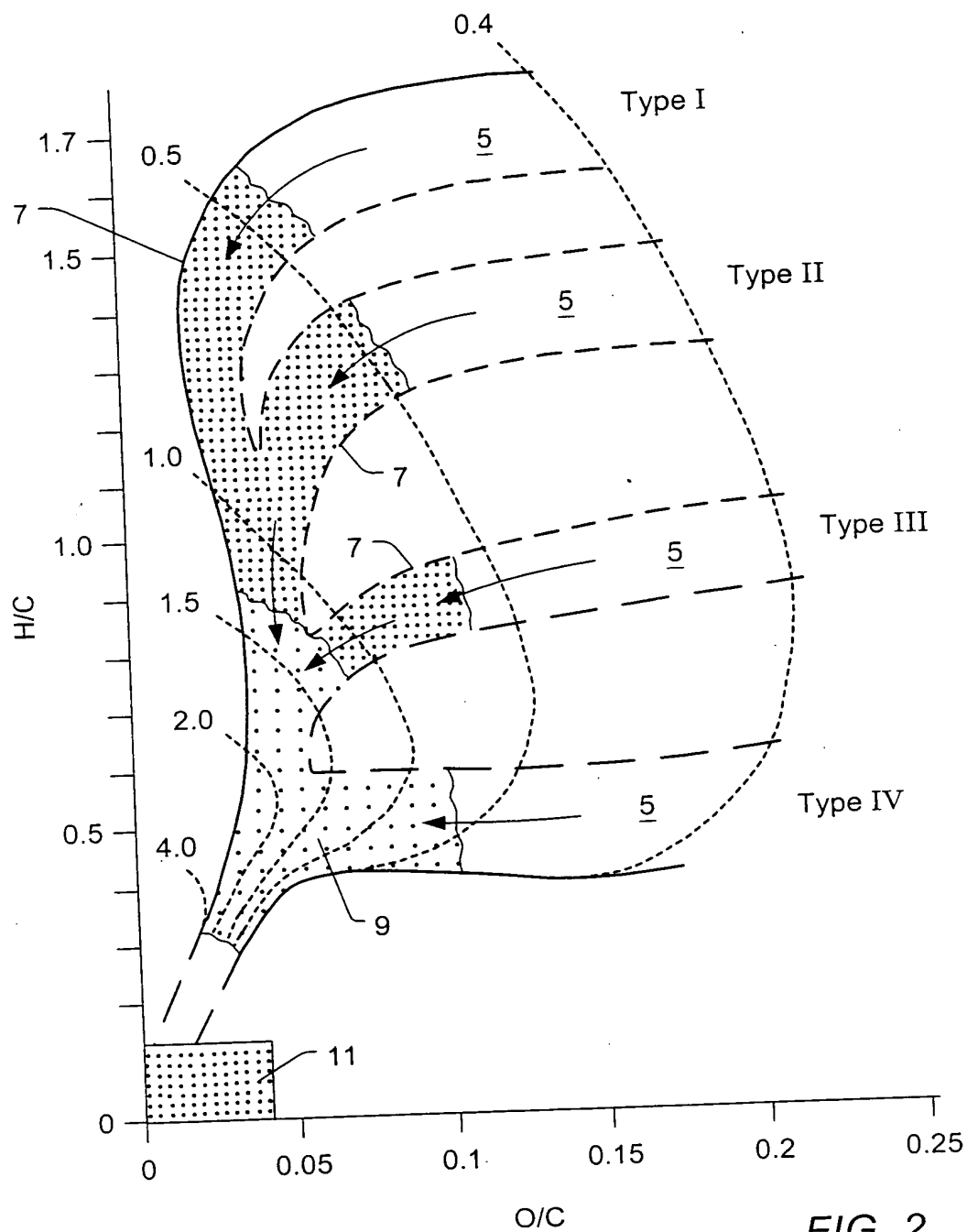


FIG. 2

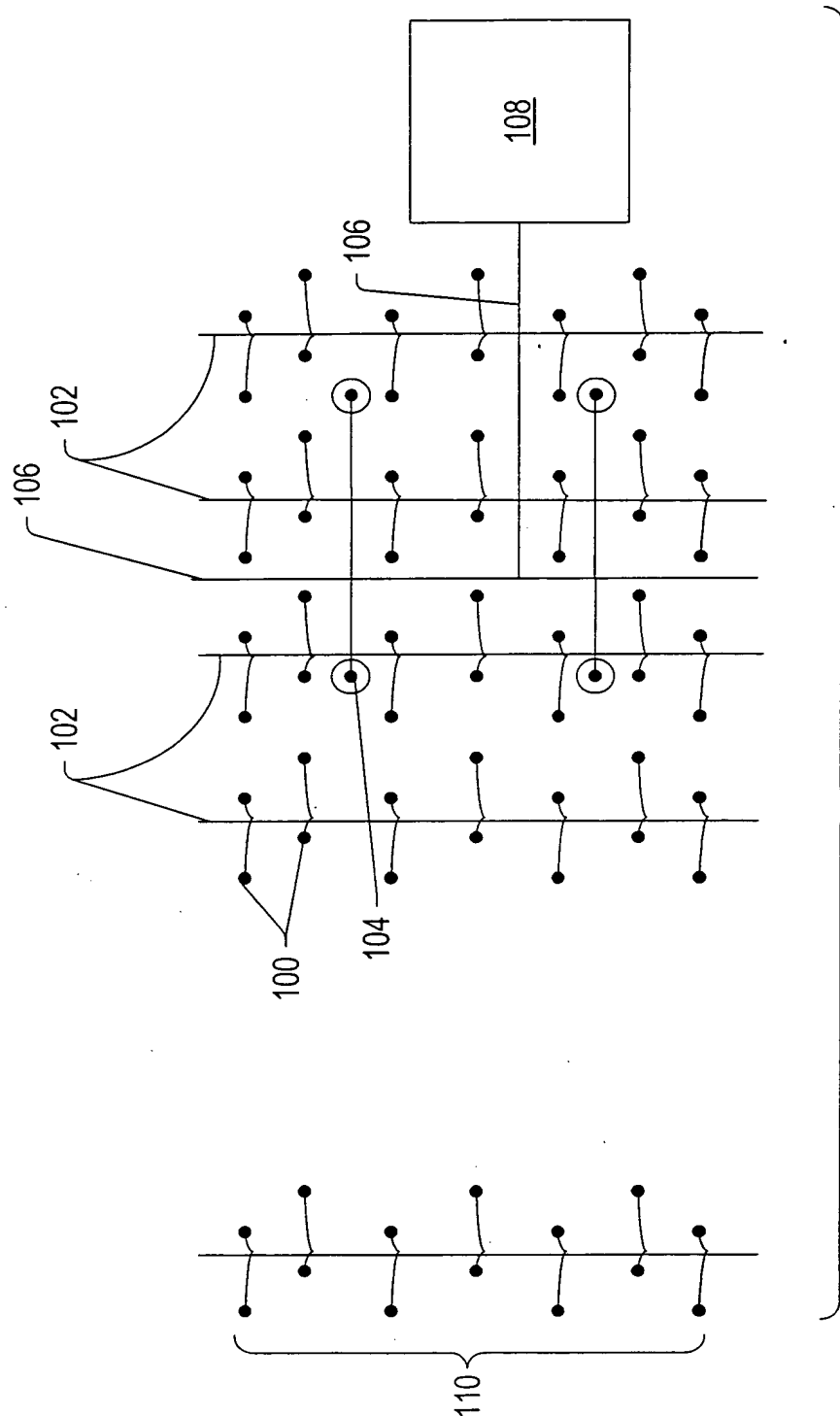


FIG. 3

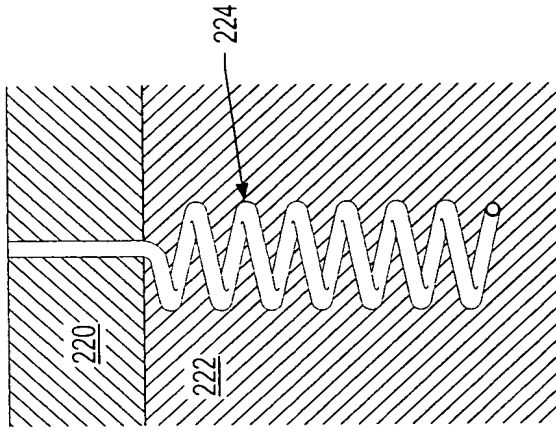


FIG. 3a

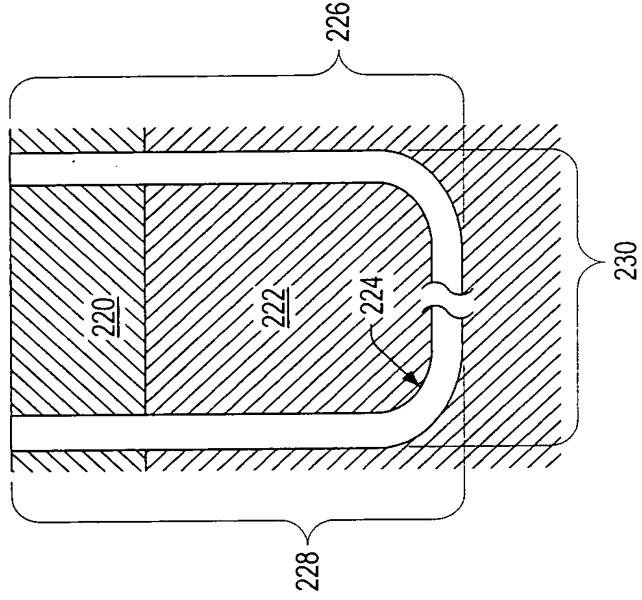


FIG. 3b

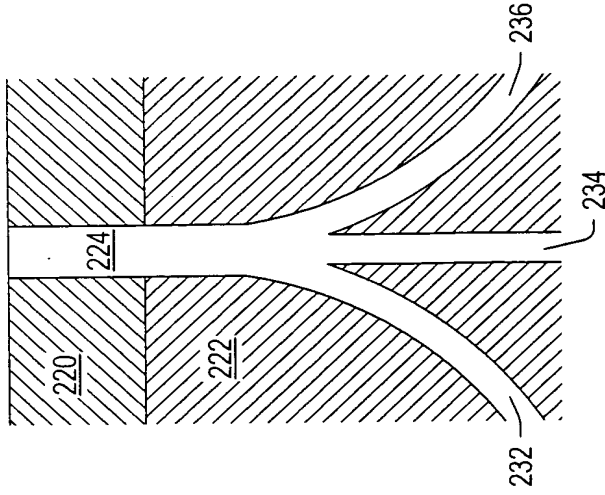


FIG. 3c

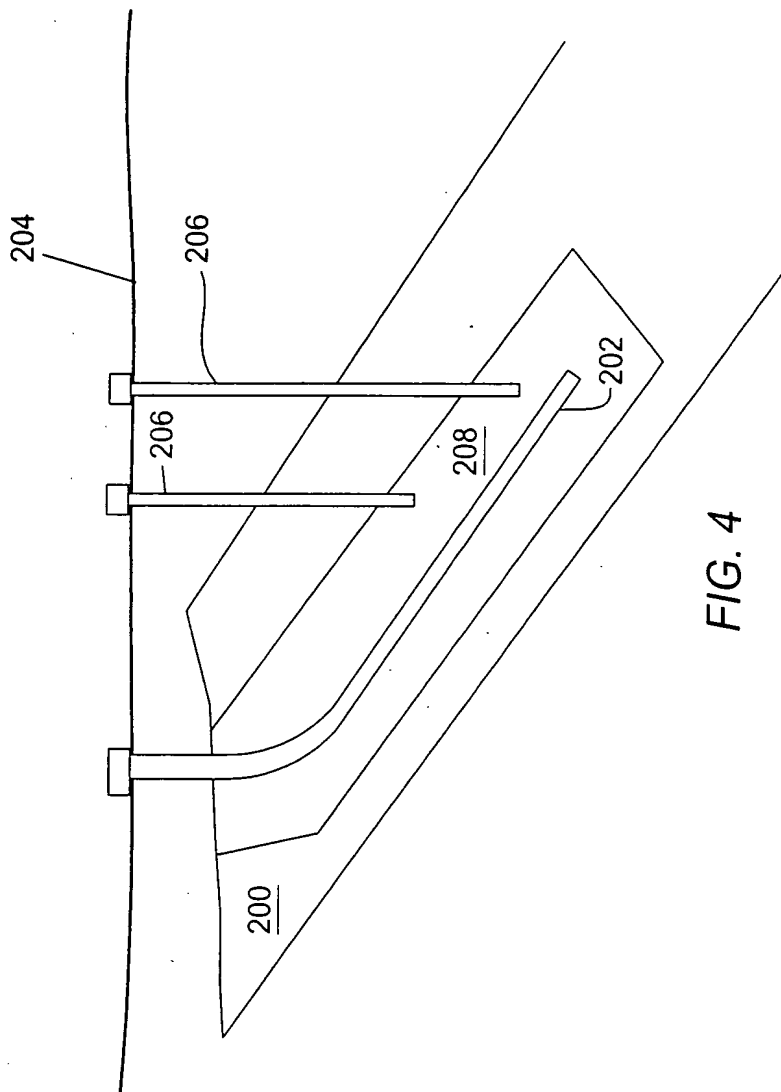
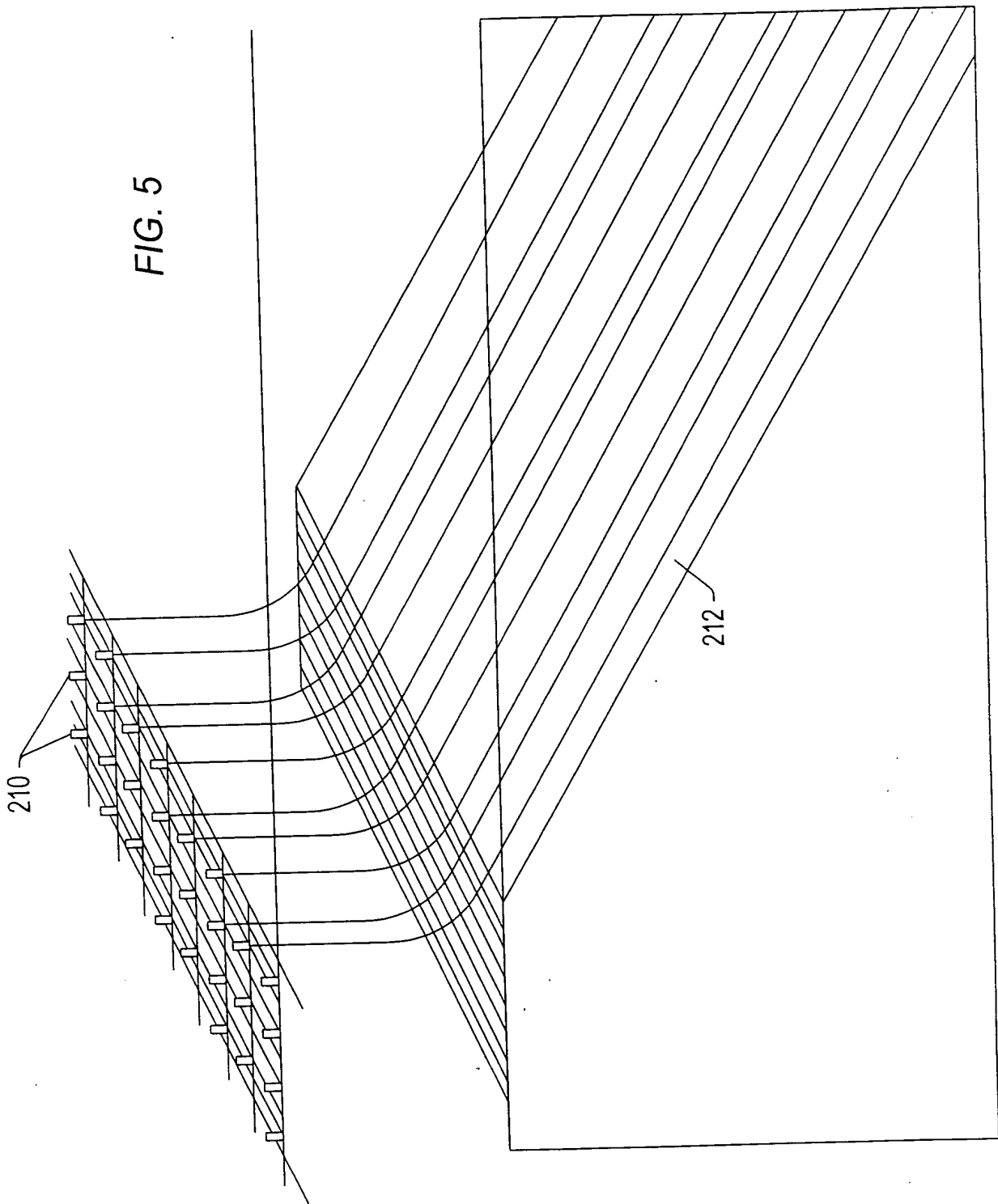


FIG. 4



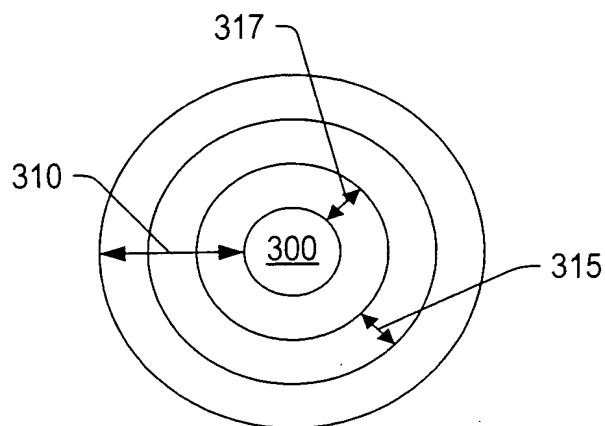


FIG. 6

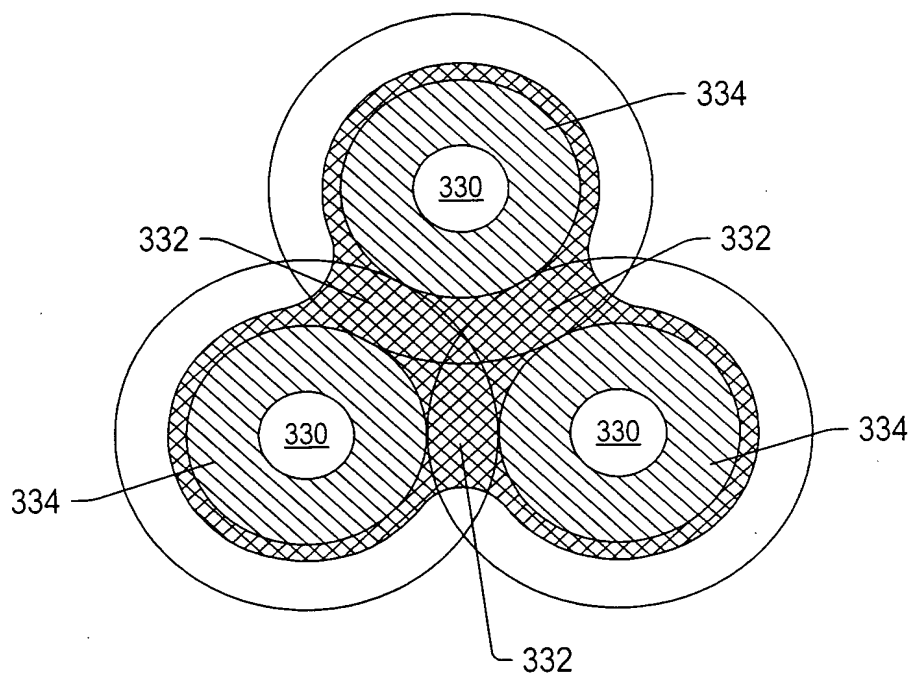


FIG. 7



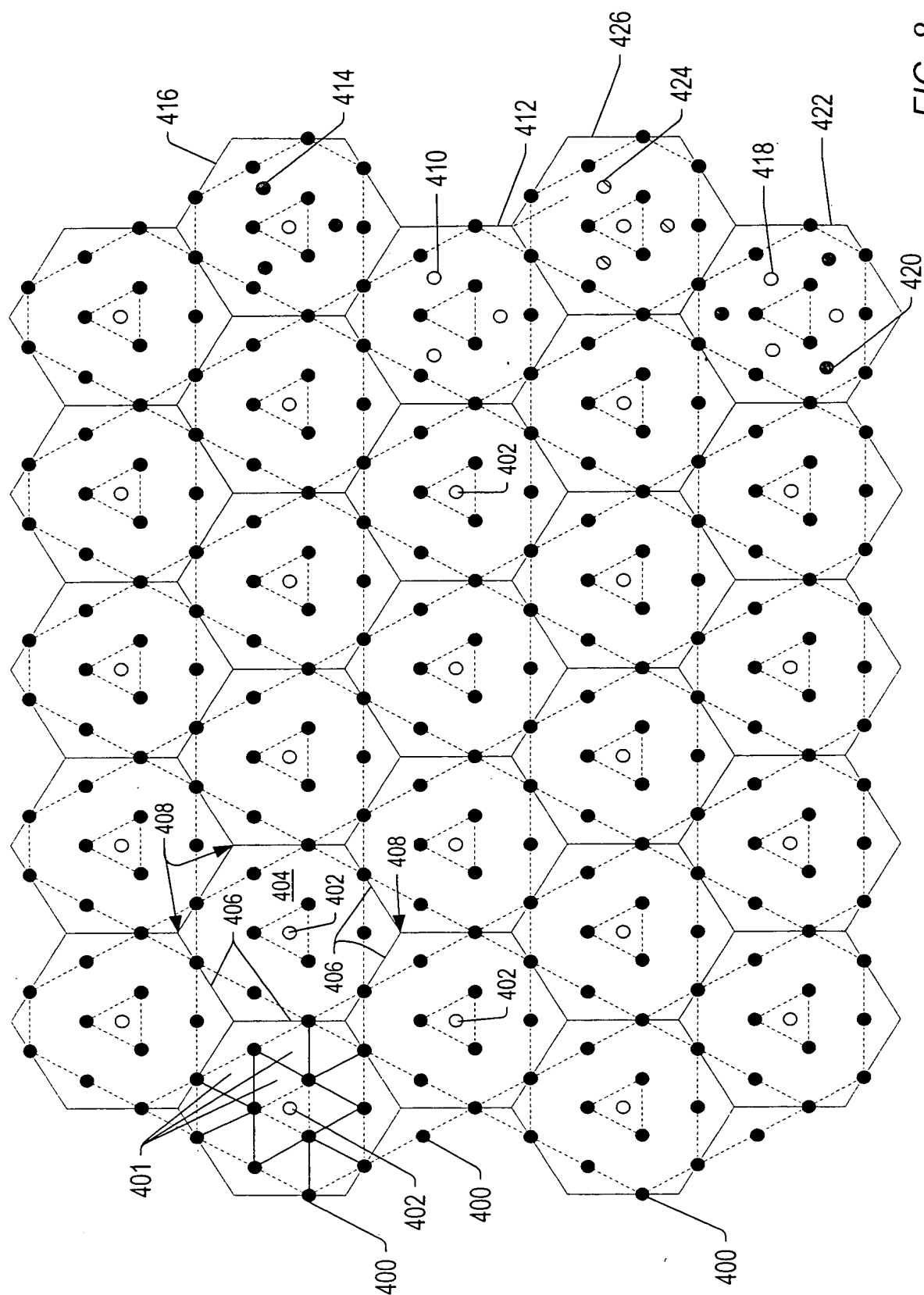


FIG. 8

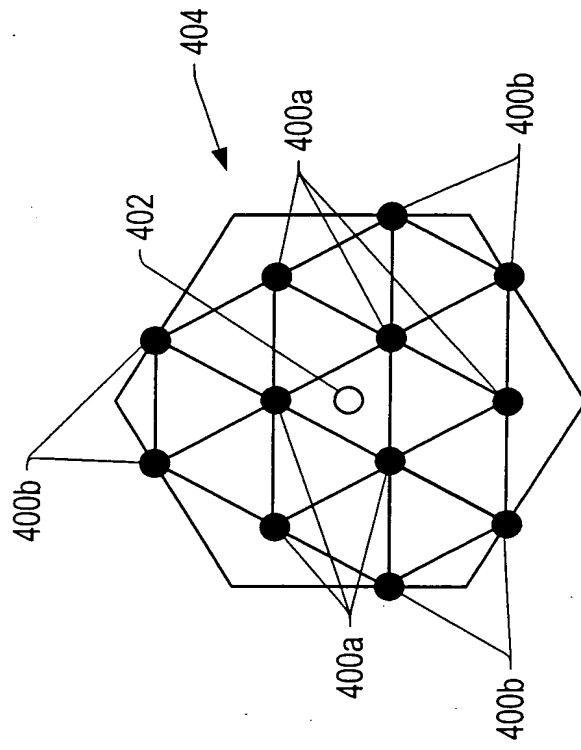


FIG. 9

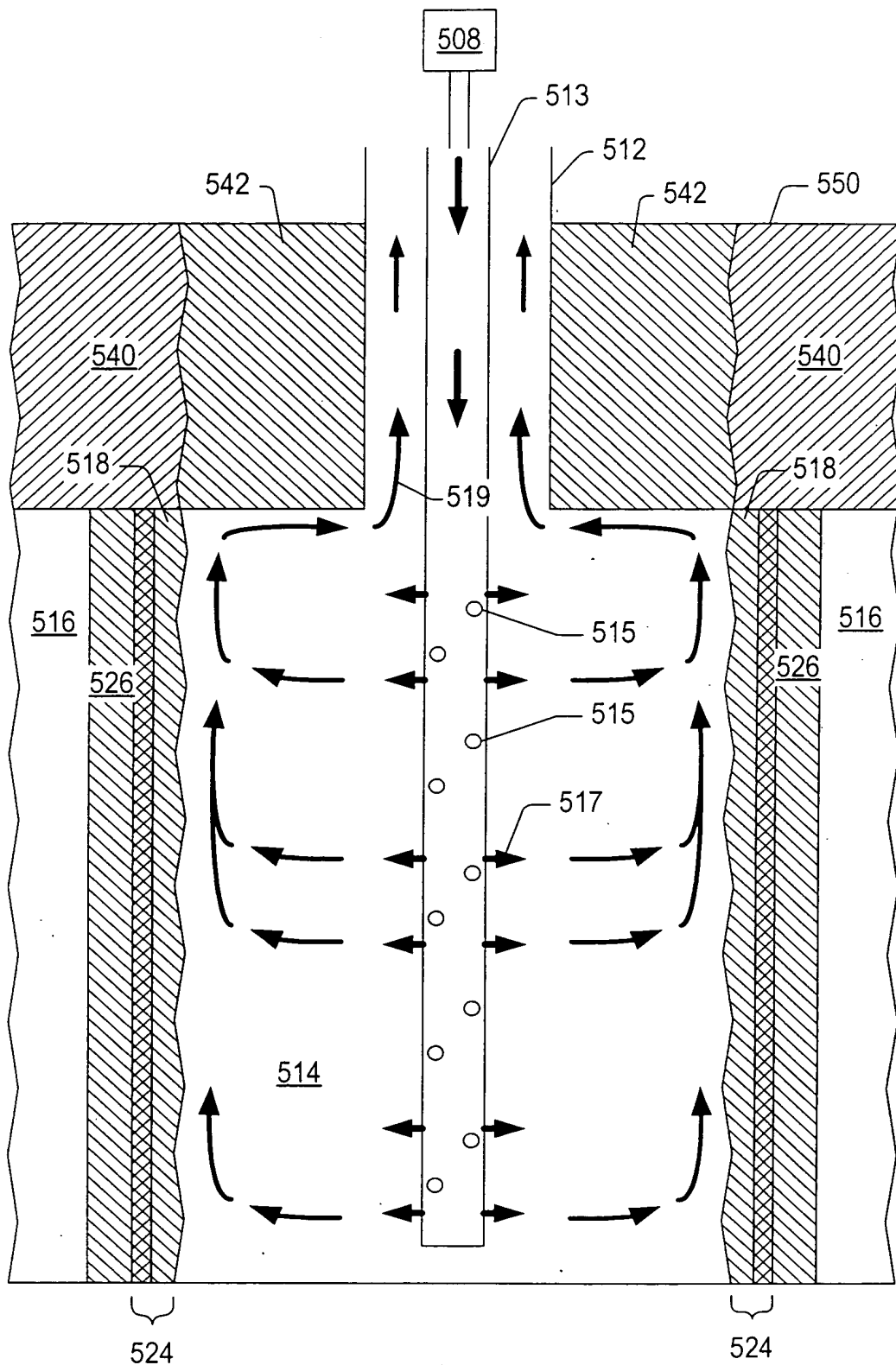


FIG. 10

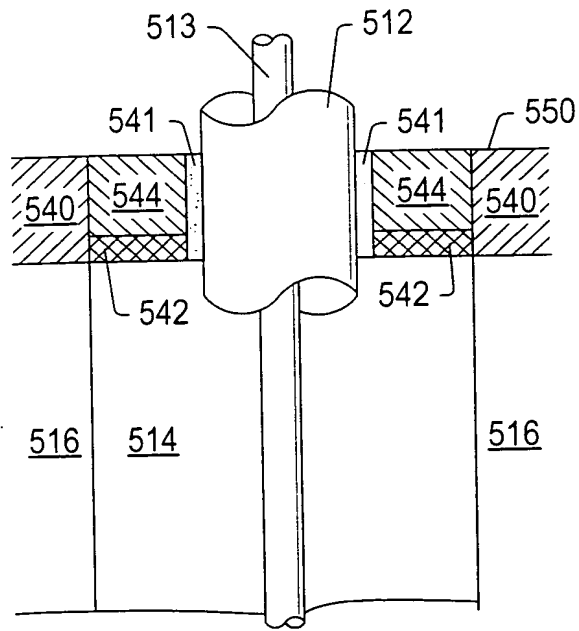


FIG. 11

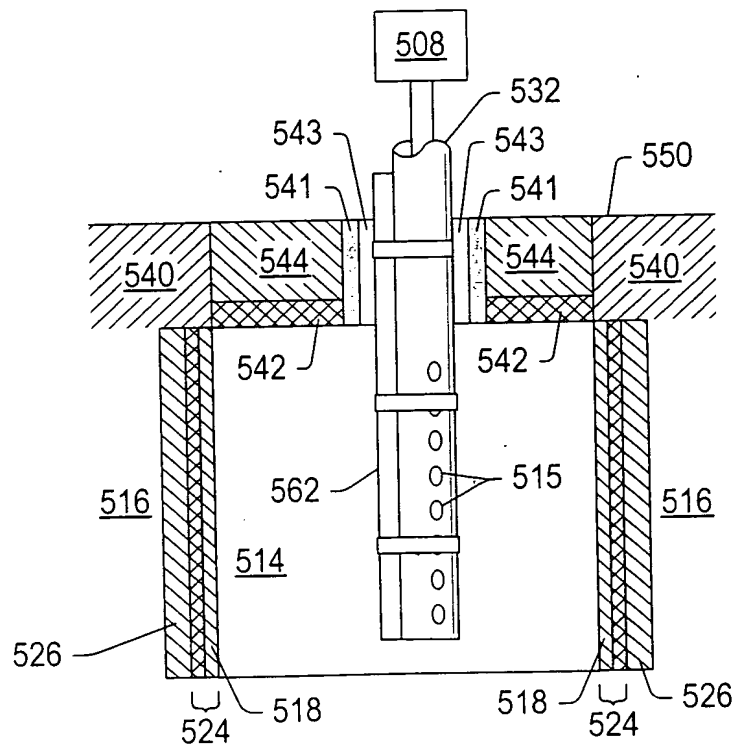


FIG. 12

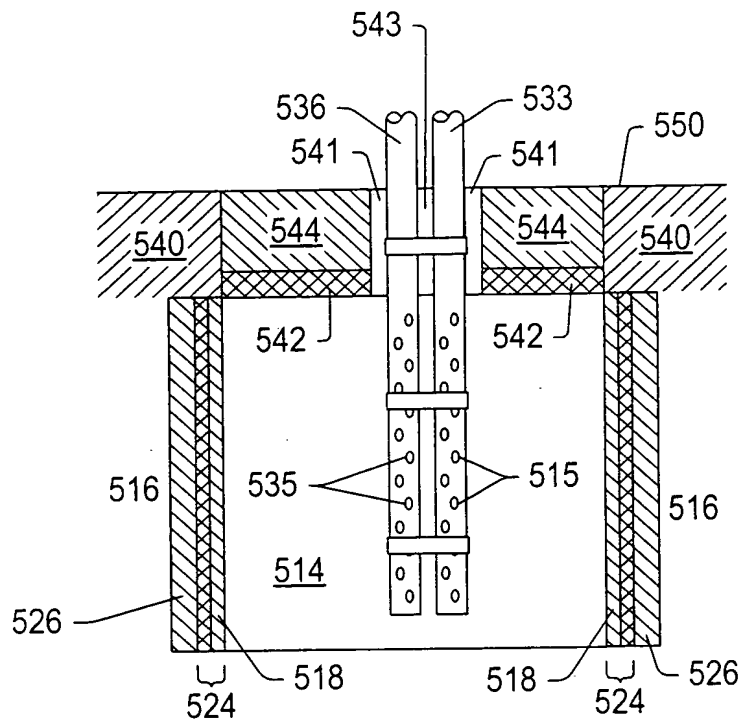


FIG. 13

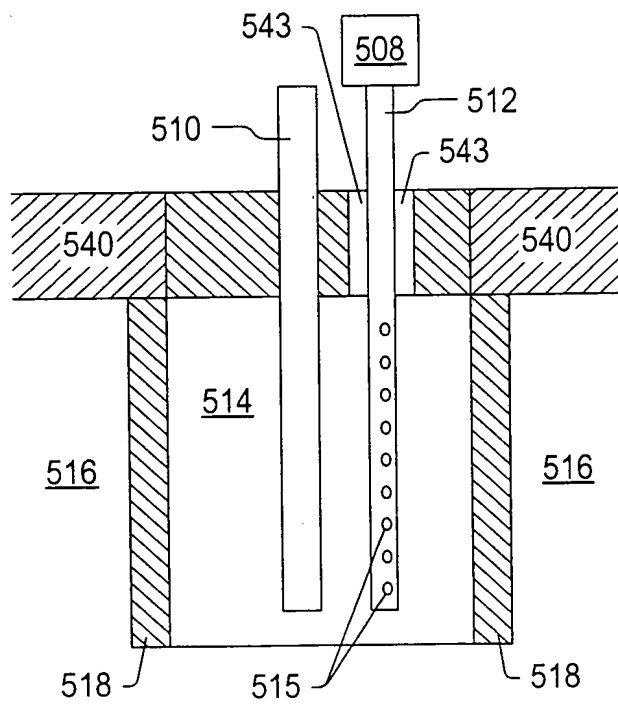


FIG. 14

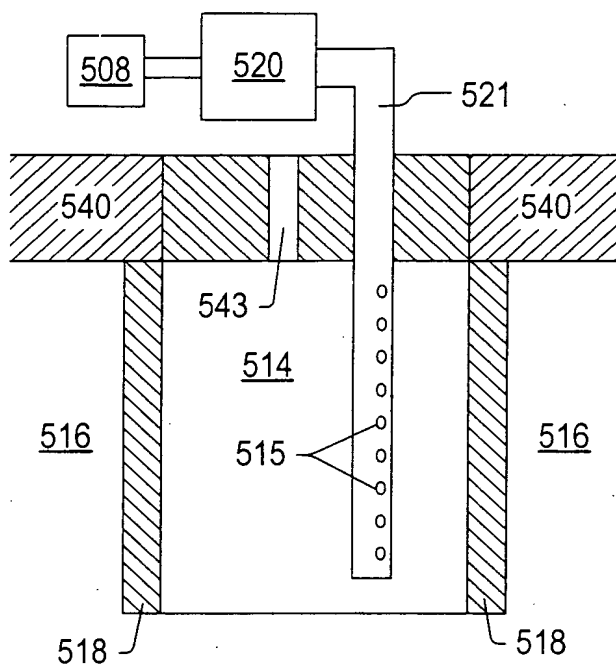


FIG. 15

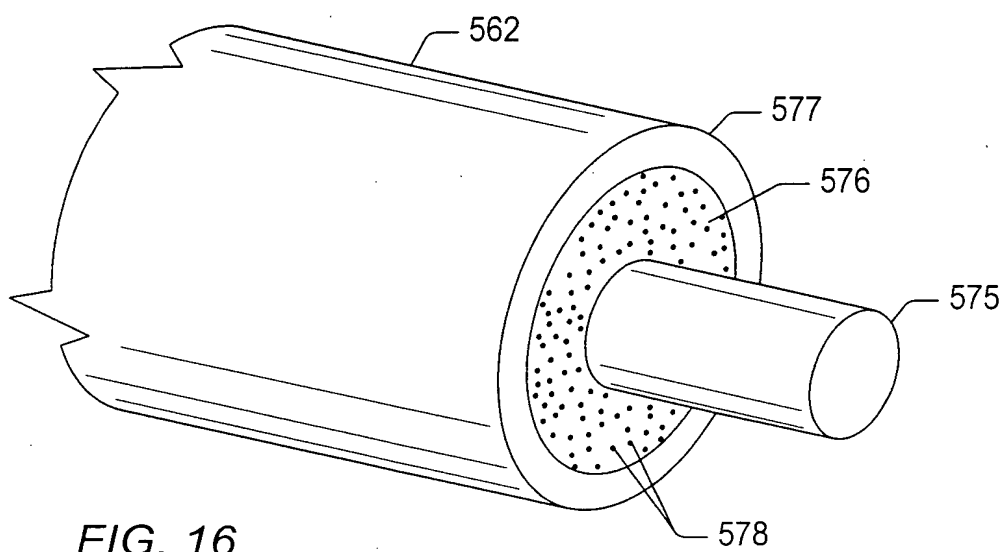


FIG. 16



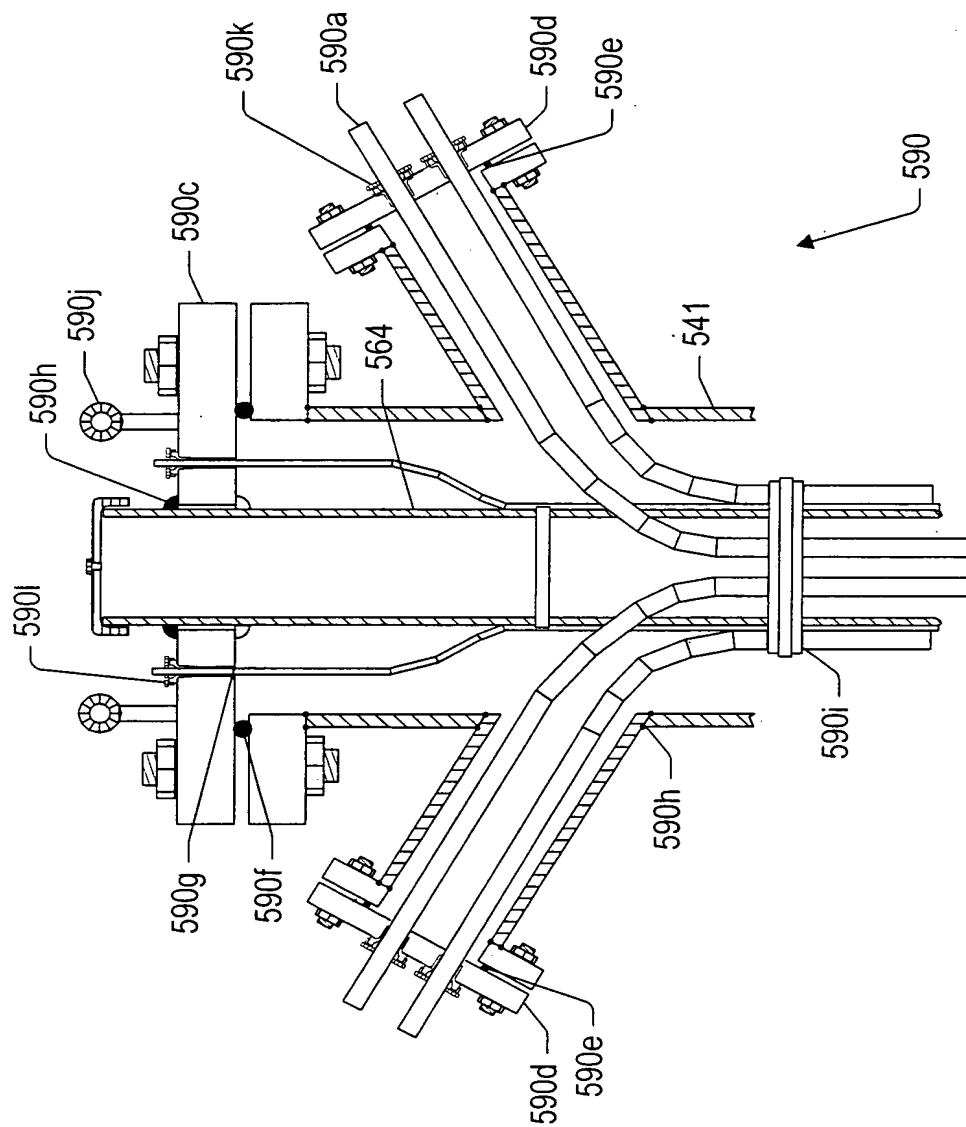


FIG. 18







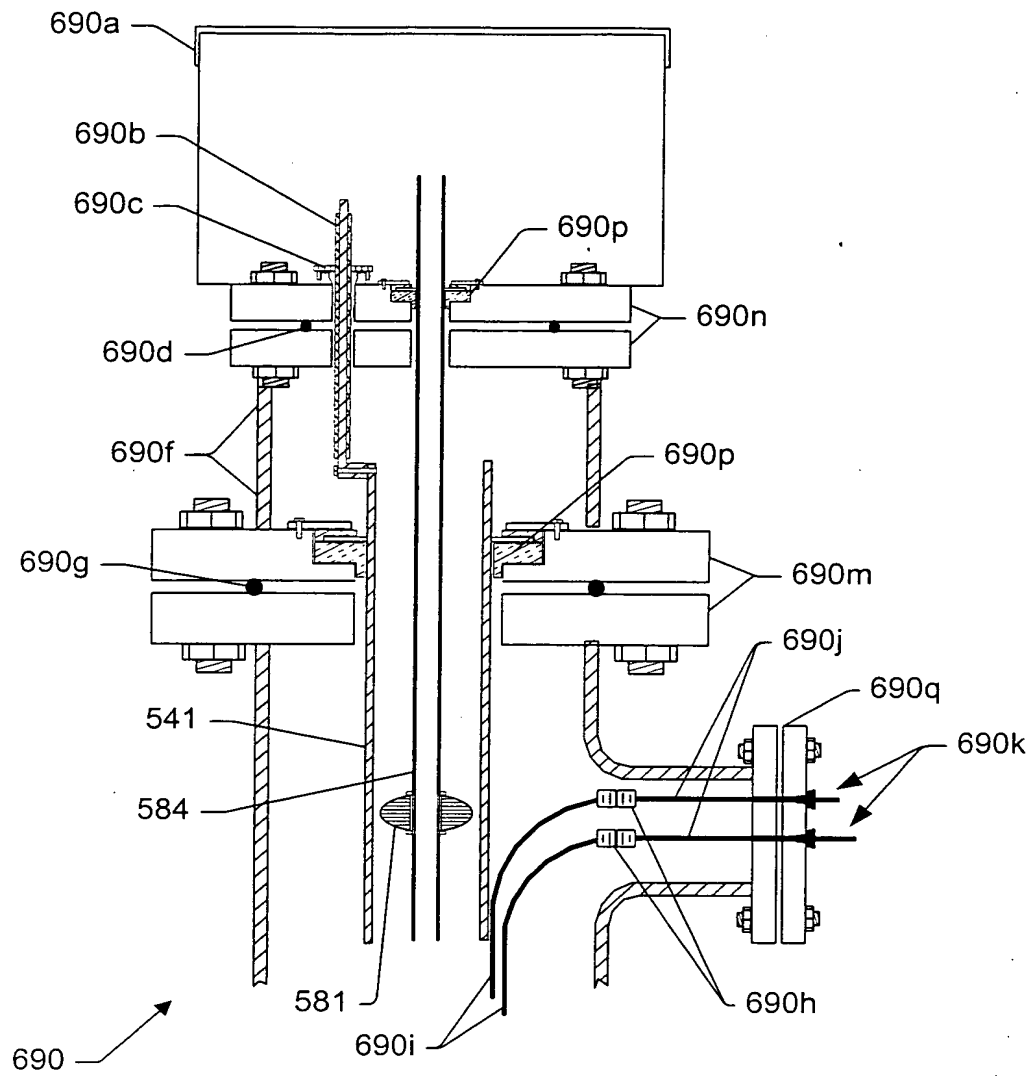


FIG. 21



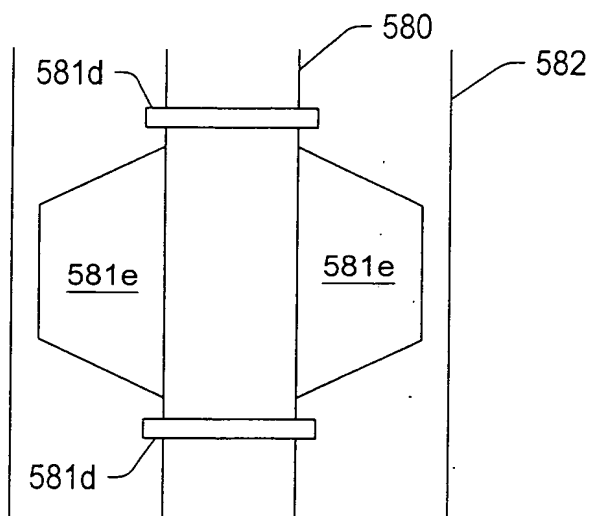


FIG. 23a

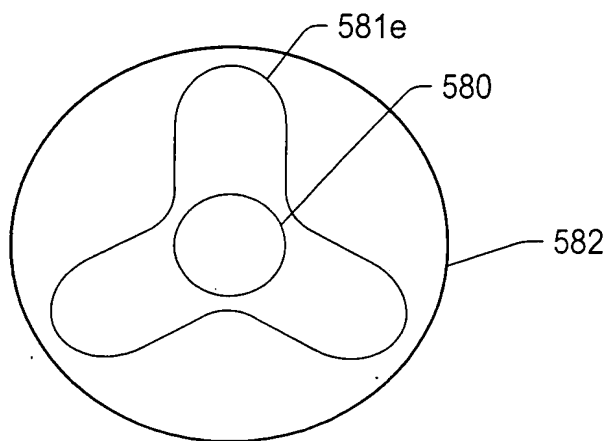


FIG. 23b

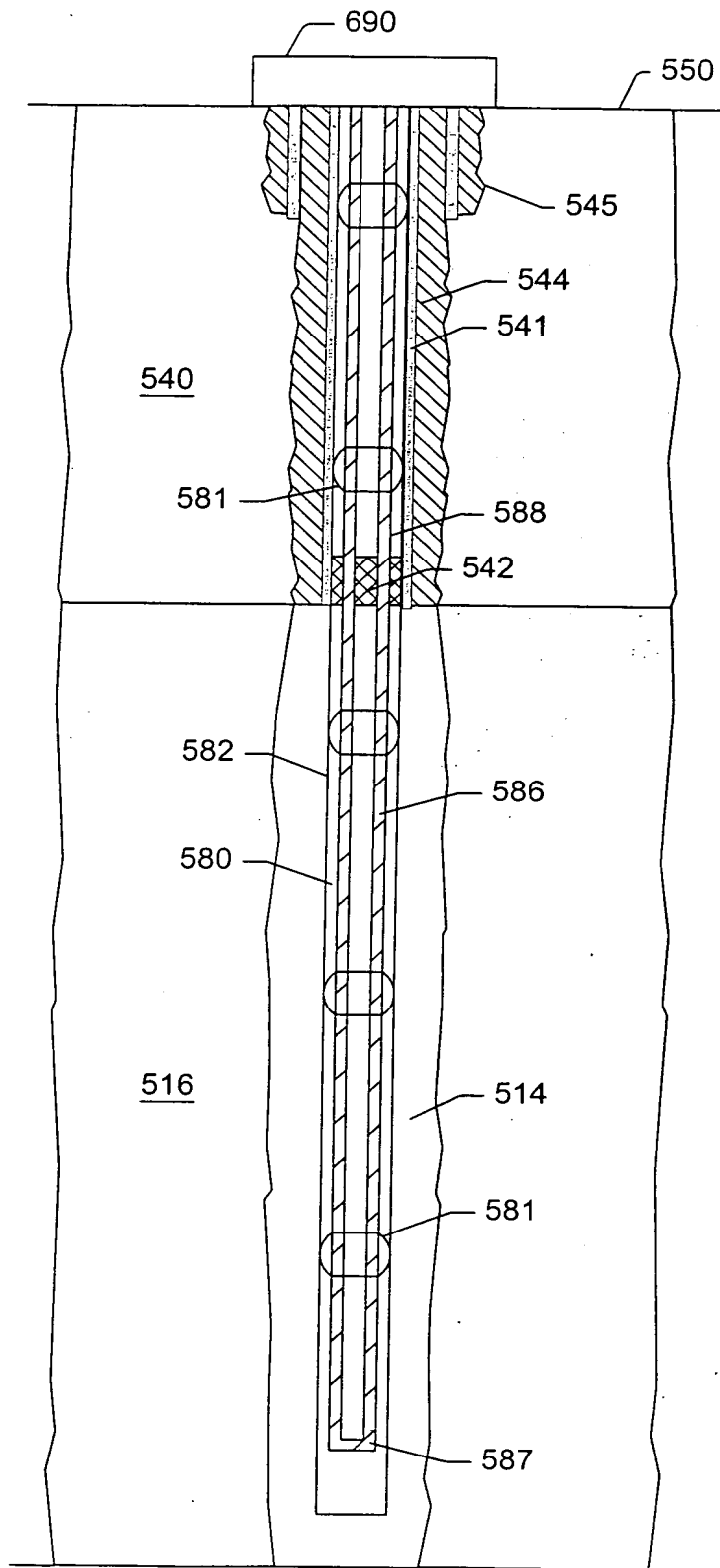


Fig. 24



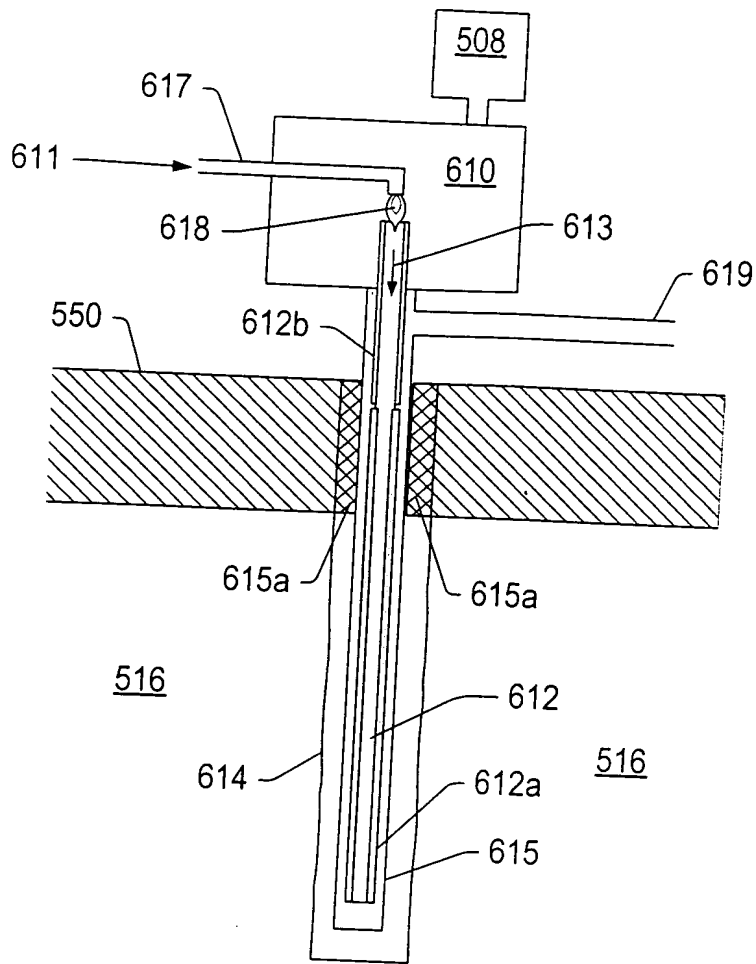


FIG. 26

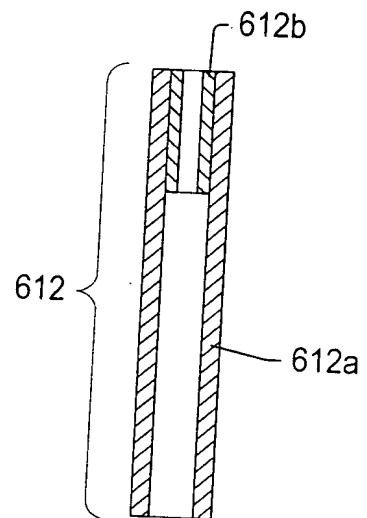


FIG. 27



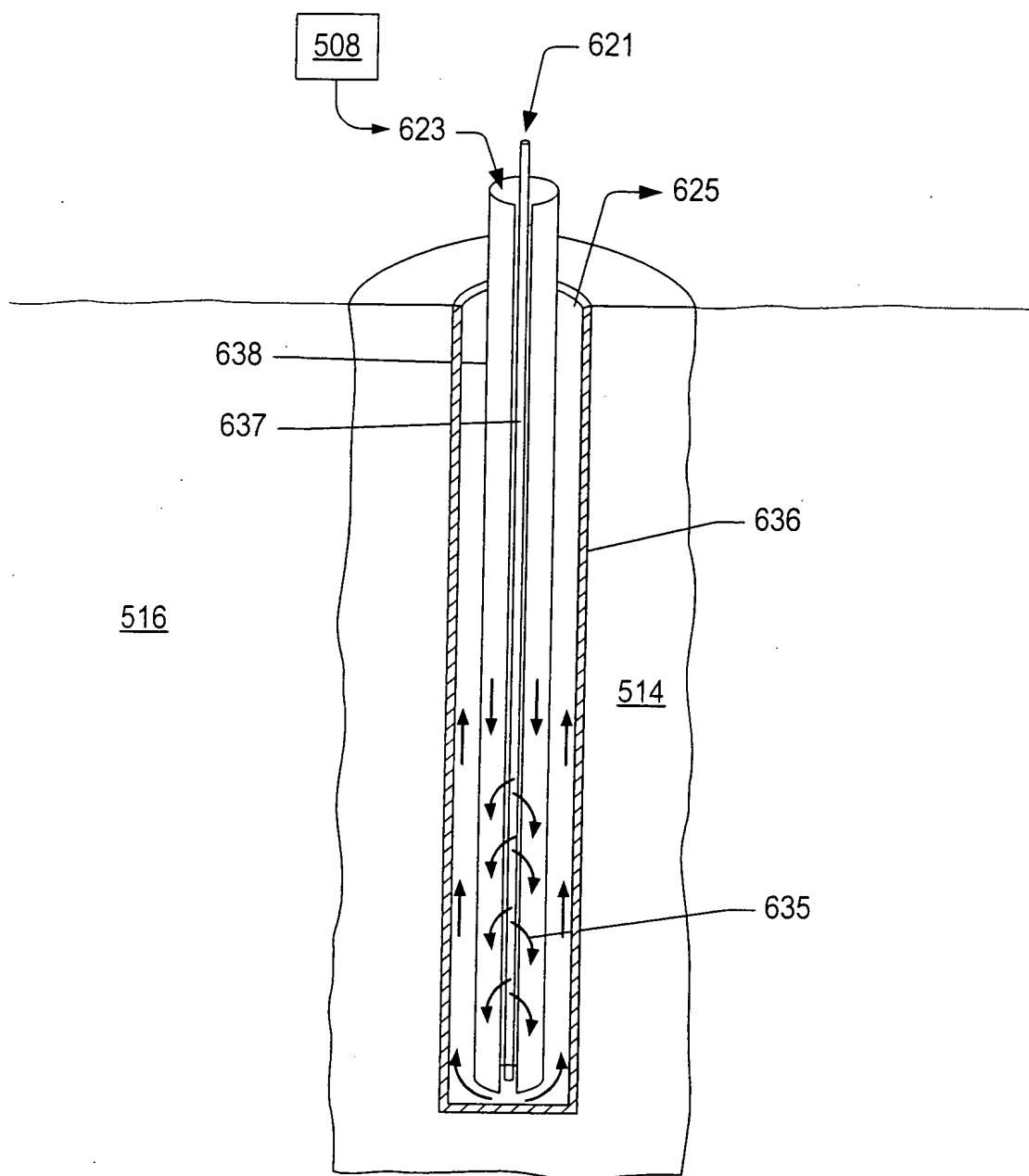


FIG. 28

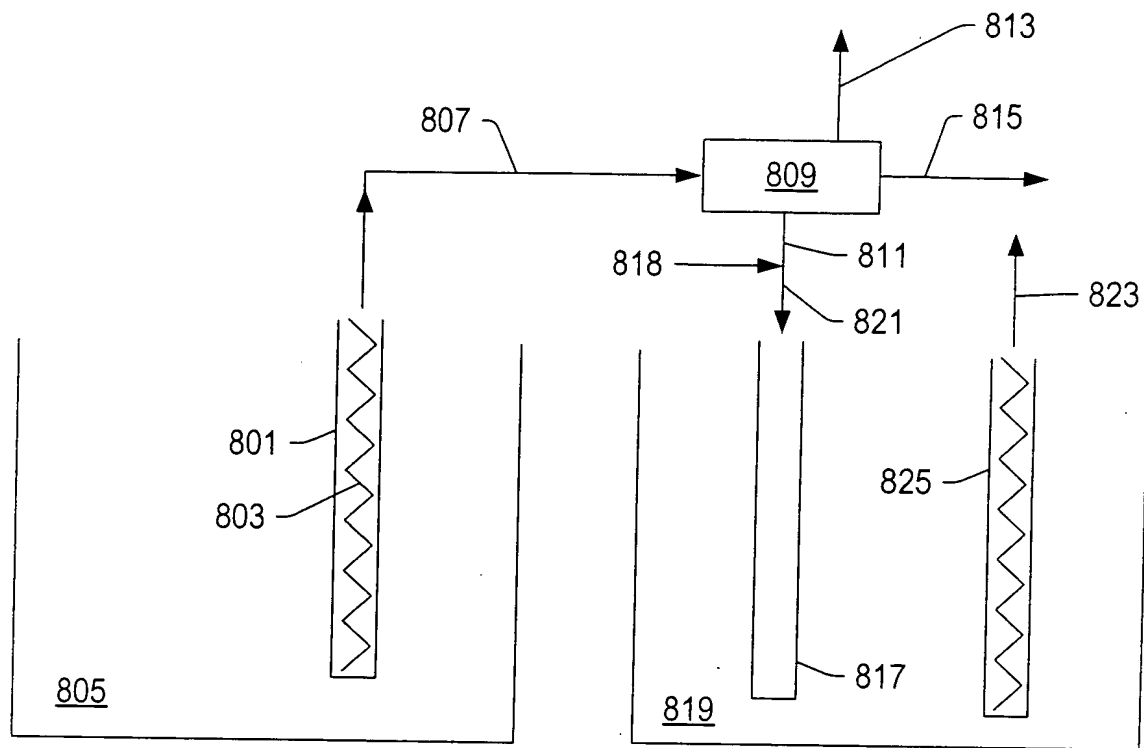


FIG. 29

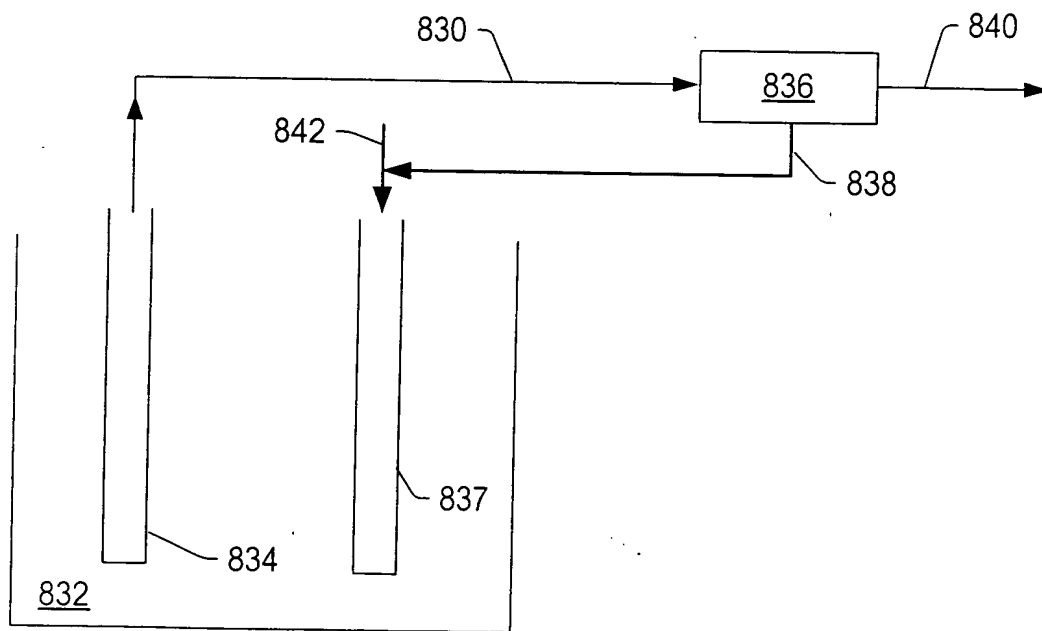


FIG. 30

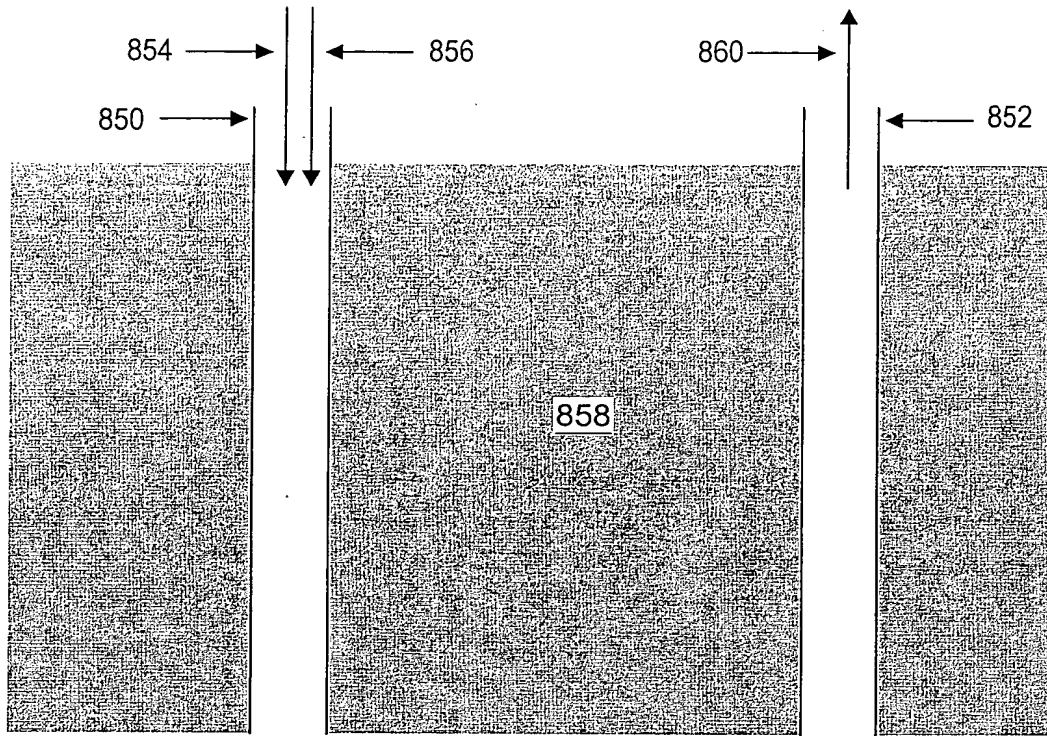


FIG. 31

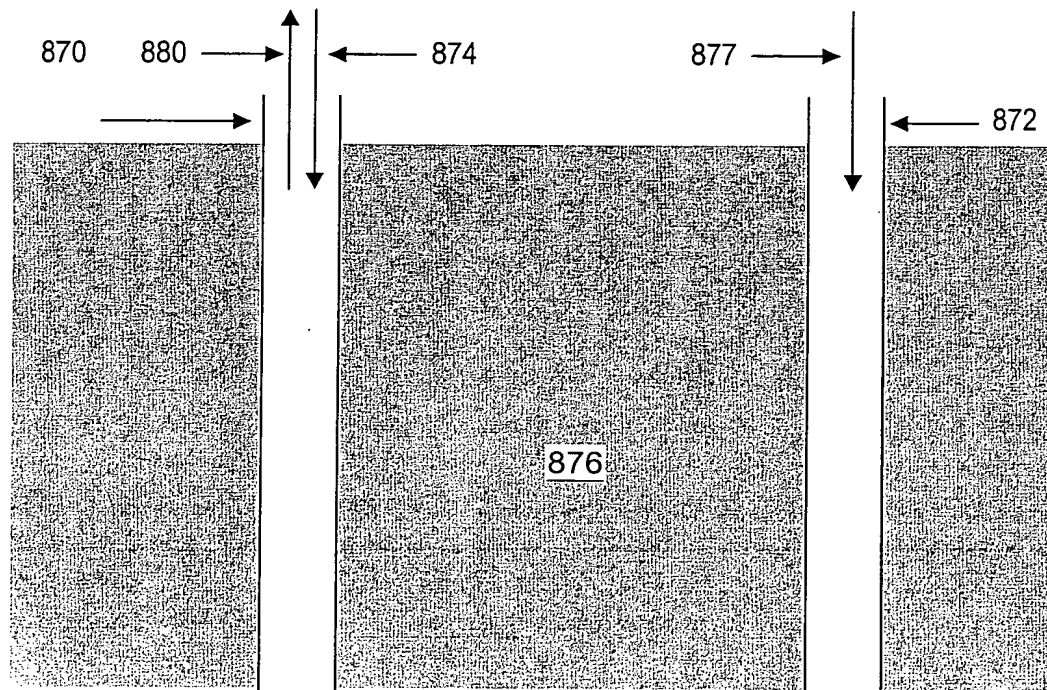
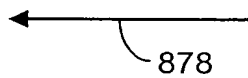


FIG. 32



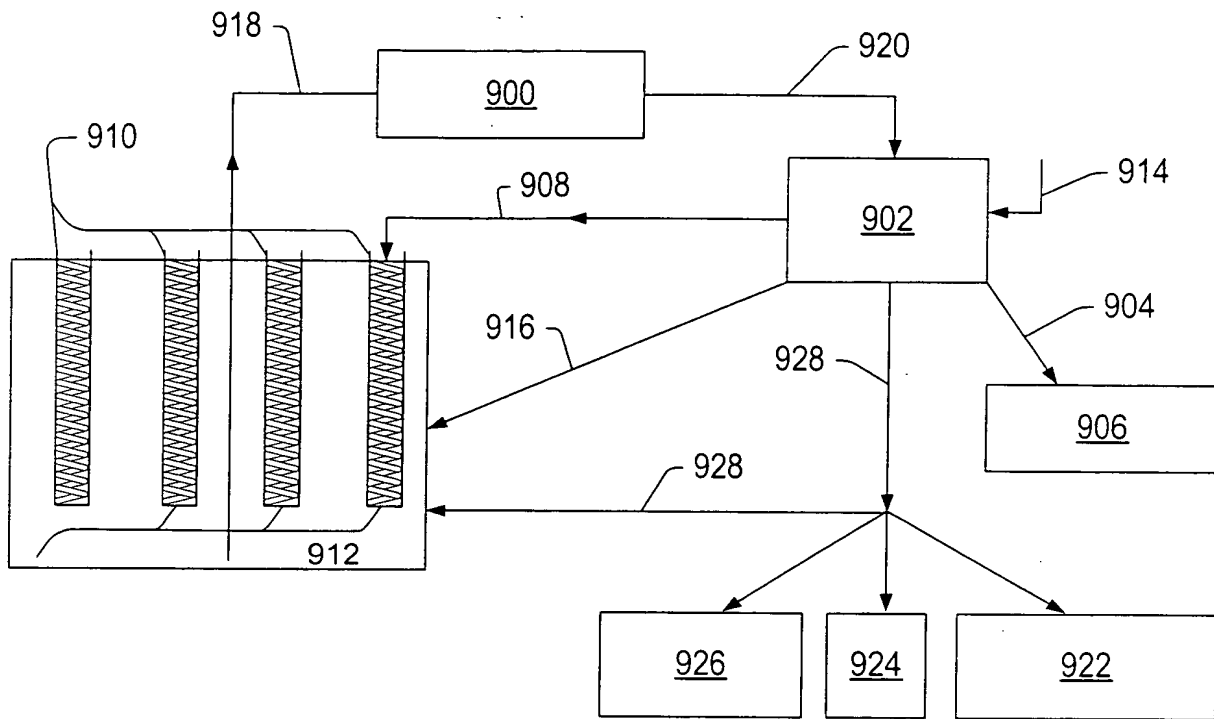


FIG. 33

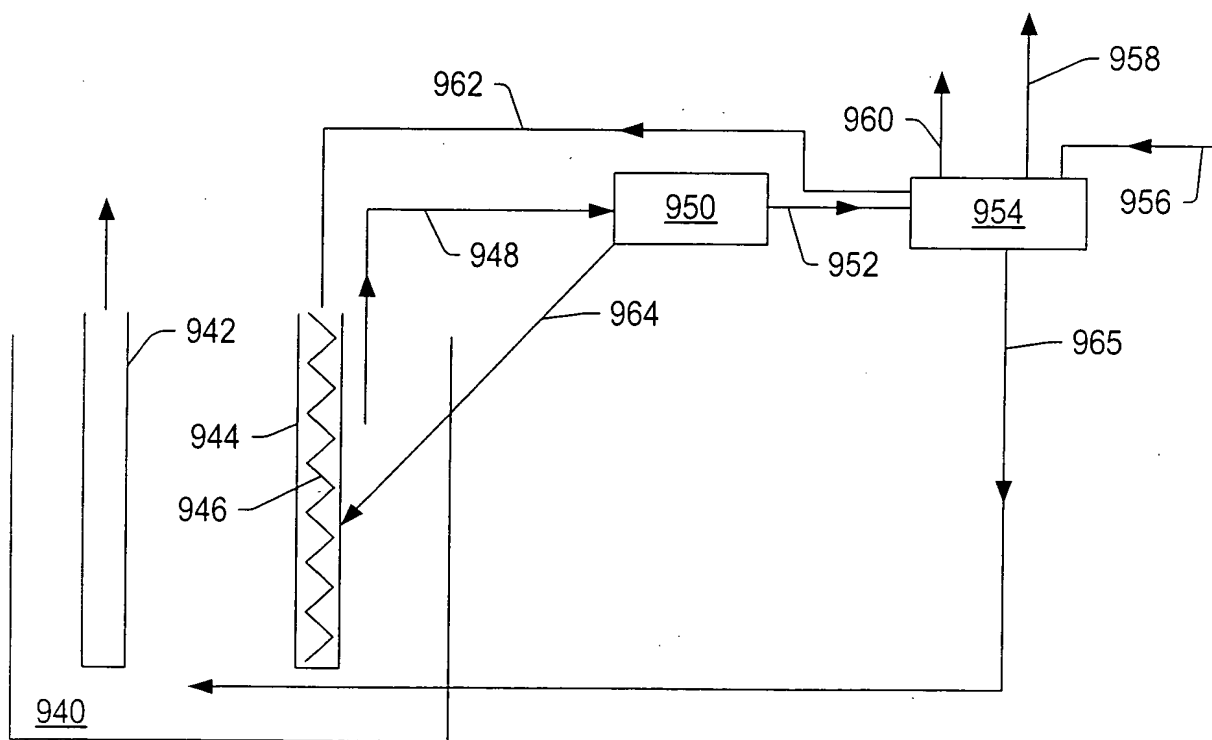


FIG. 34

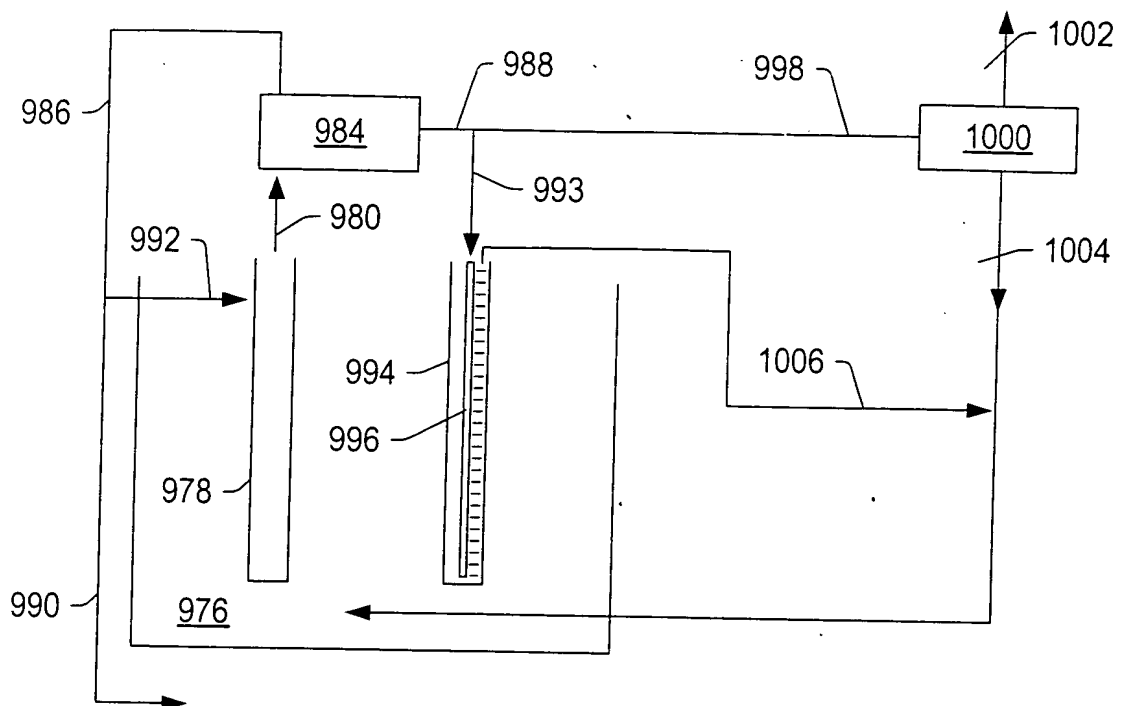


FIG. 35

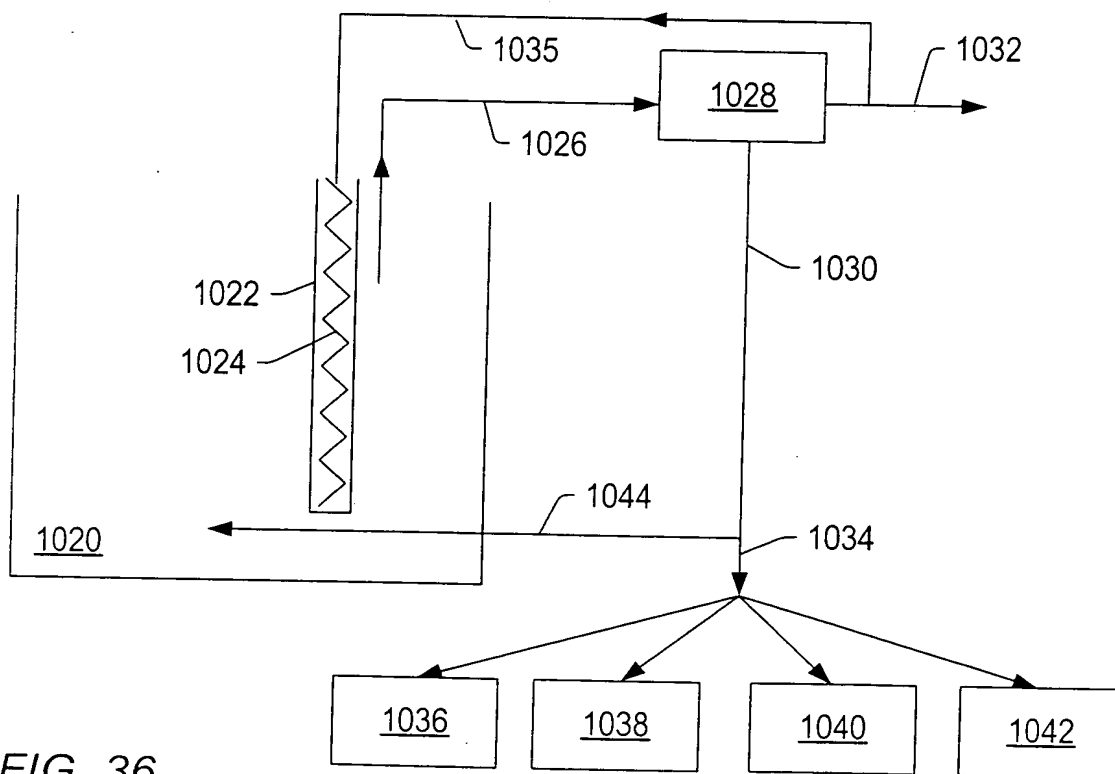


FIG. 36

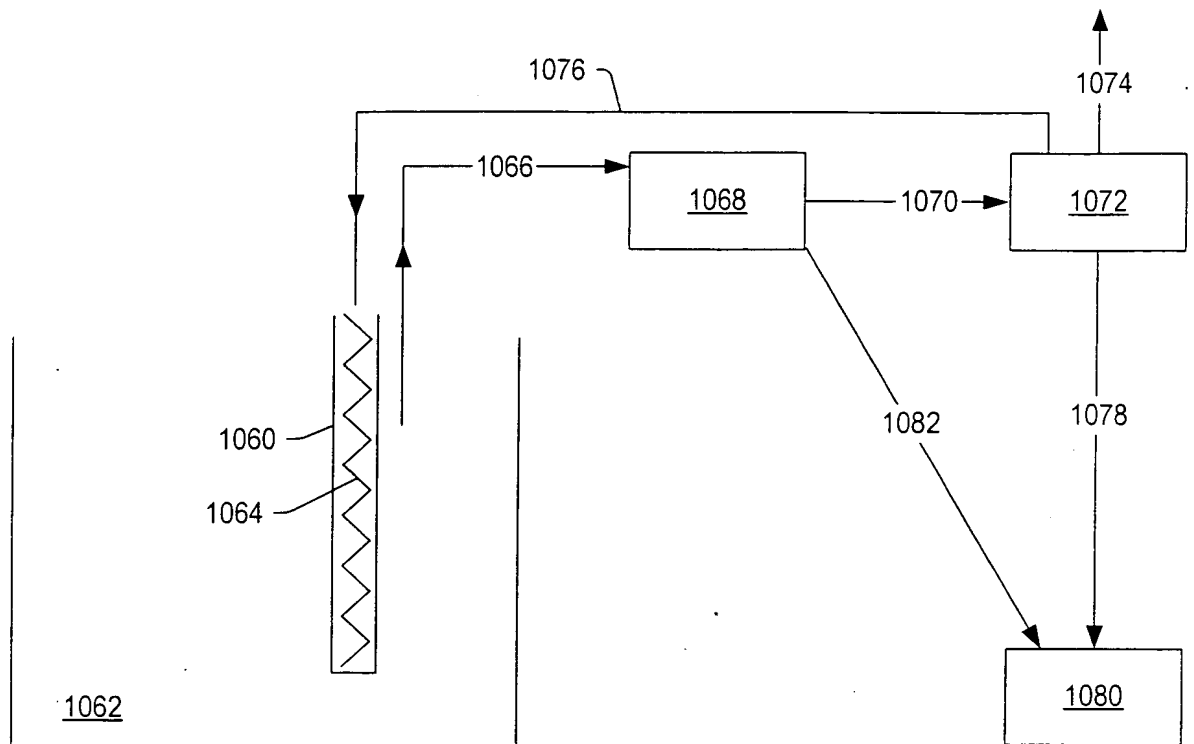


FIG. 37

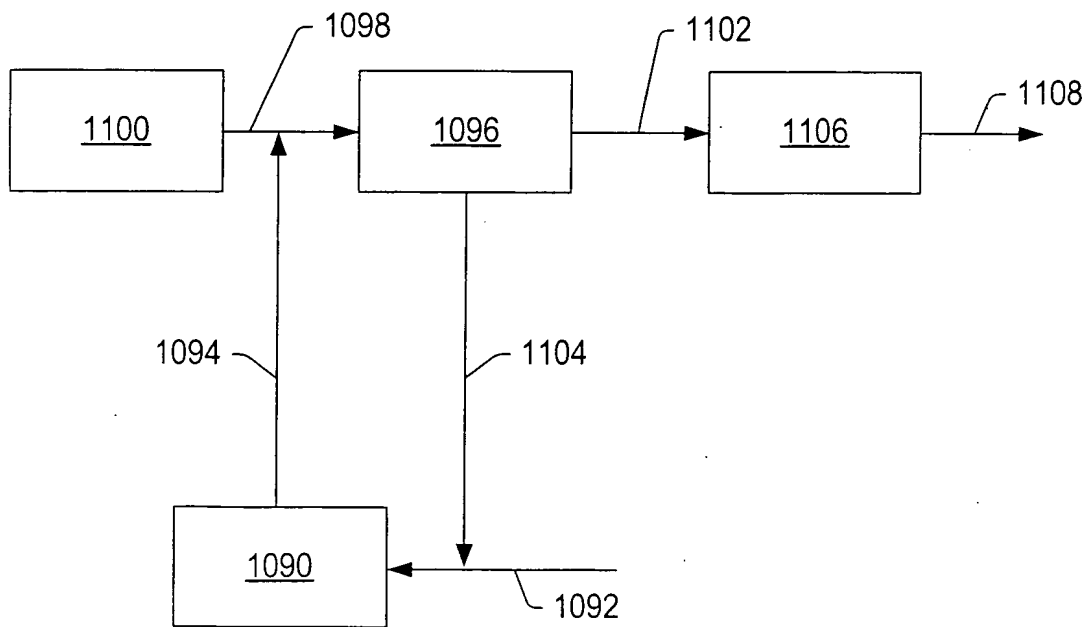


FIG. 38

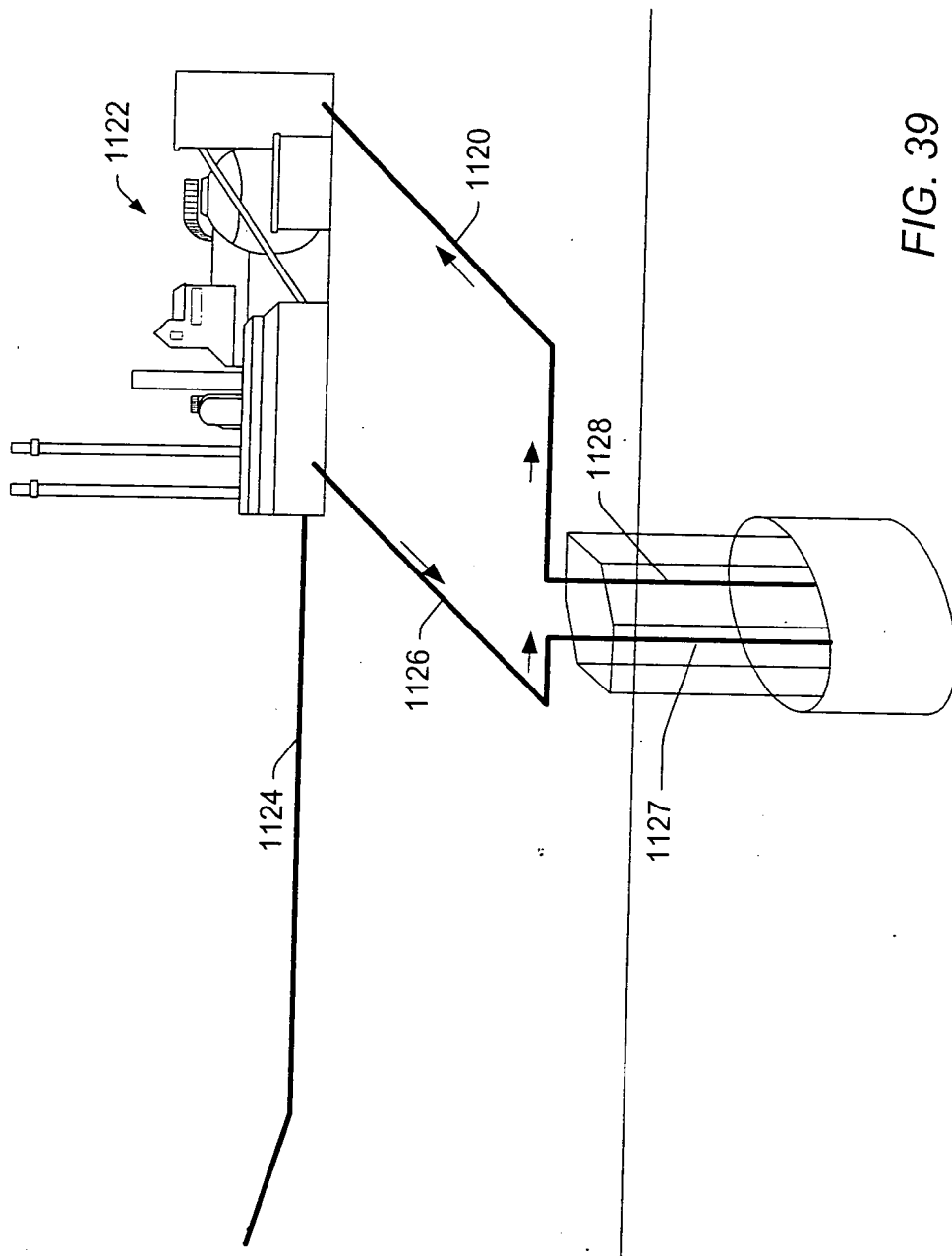


FIG. 39

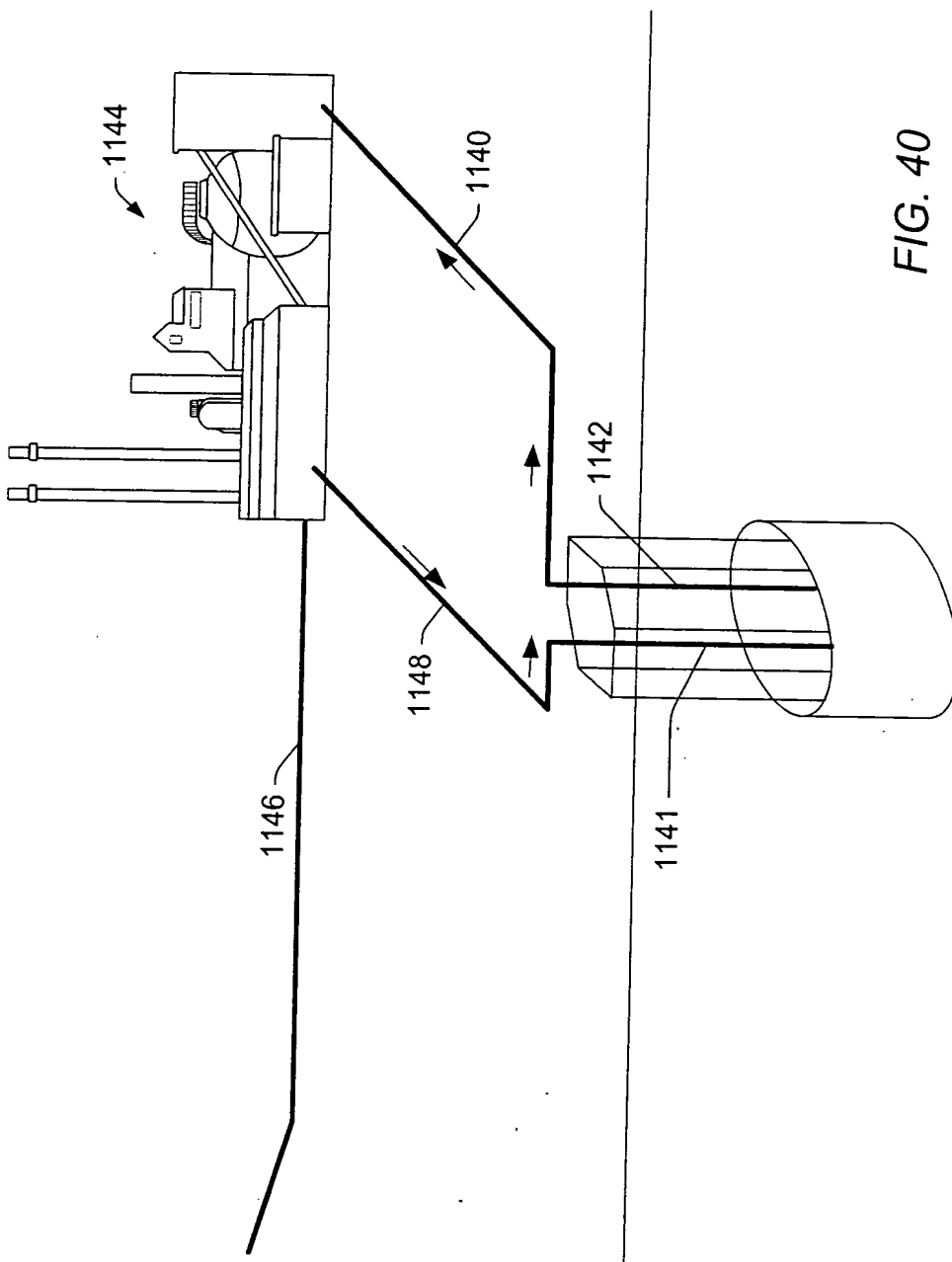


FIG. 40



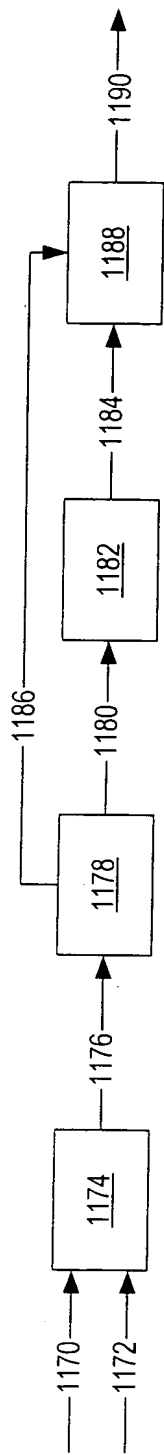


FIG. 41

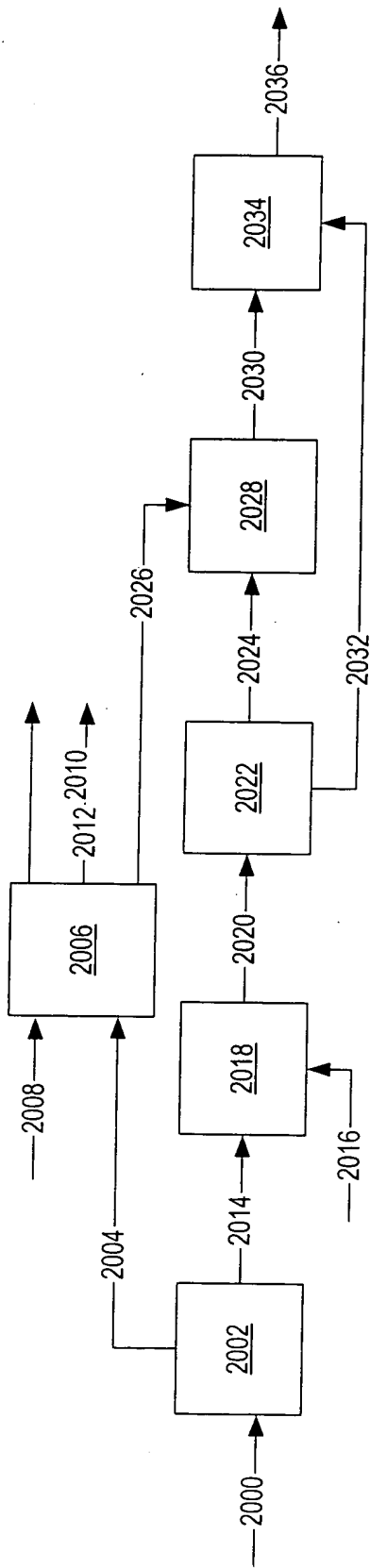


FIG. 42

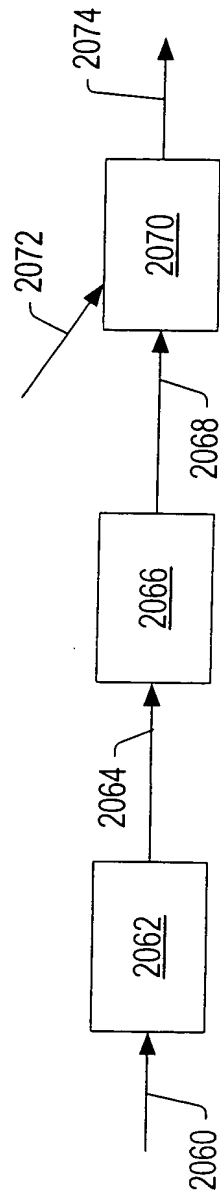


FIG. 43

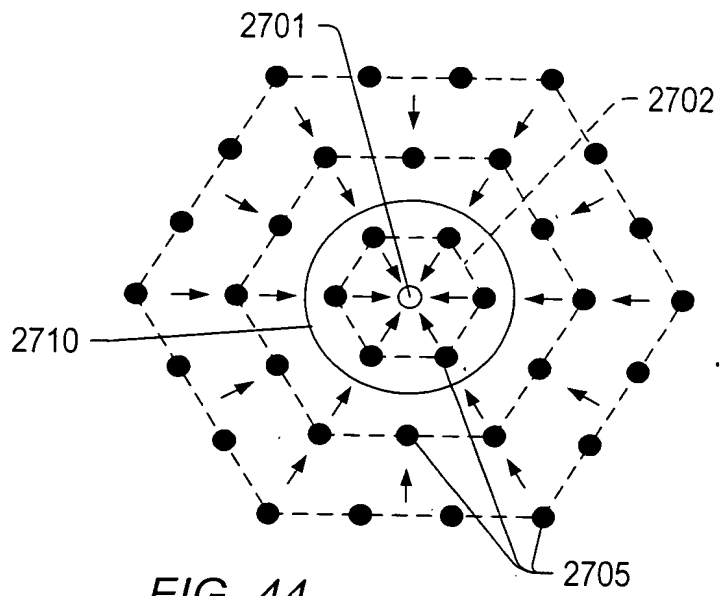


FIG. 44

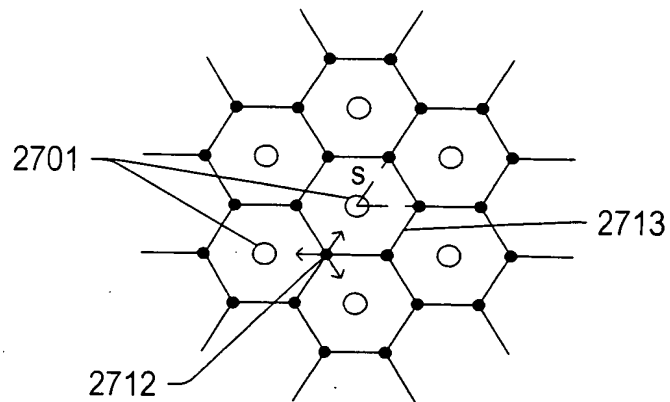


FIG. 45

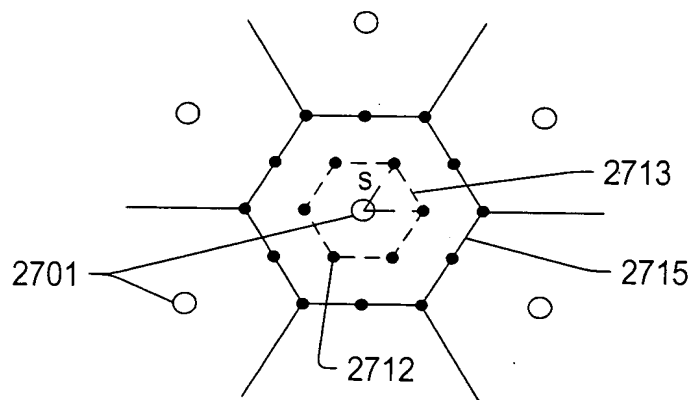


FIG. 46

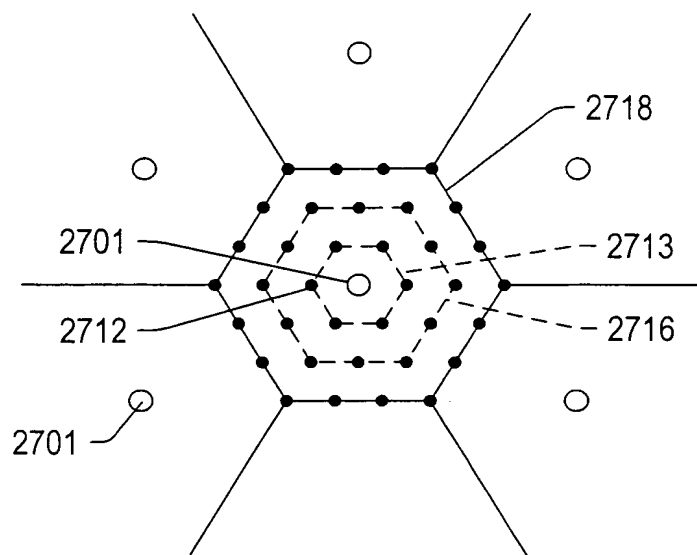


FIG. 47

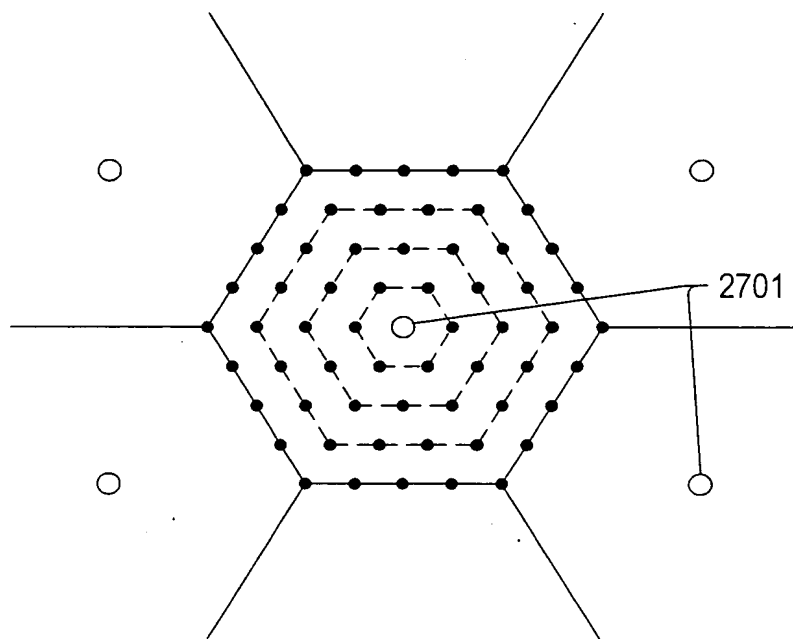


FIG. 48

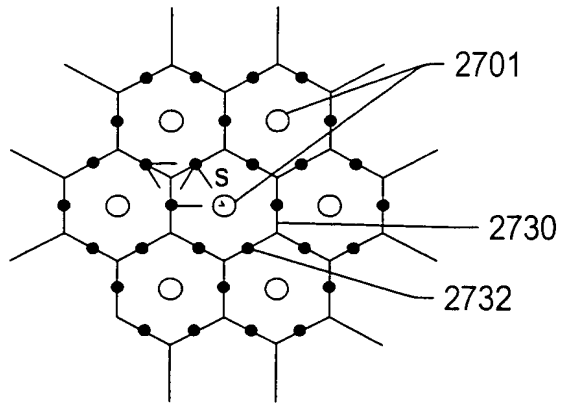


FIG. 49

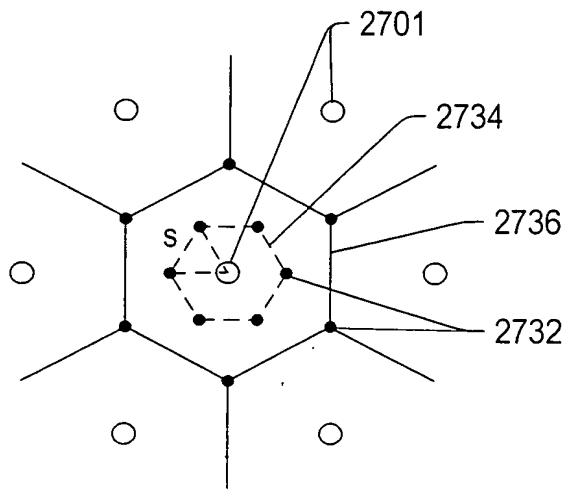


FIG. 50

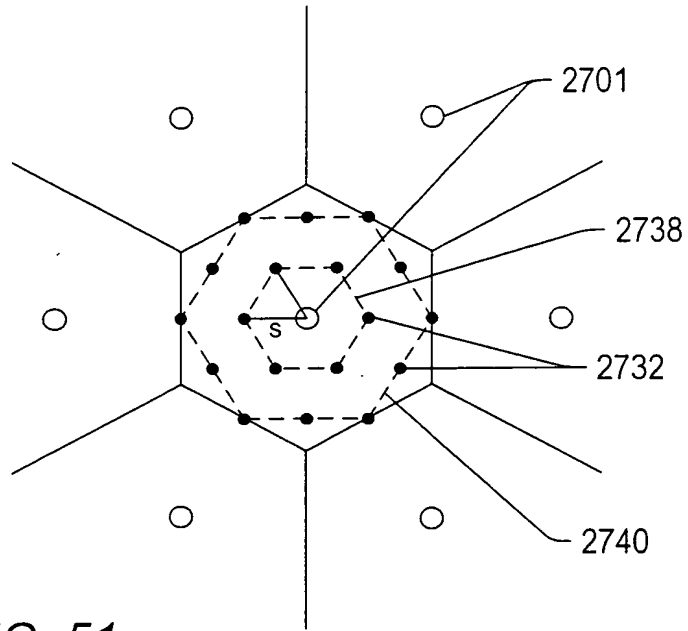


FIG. 51

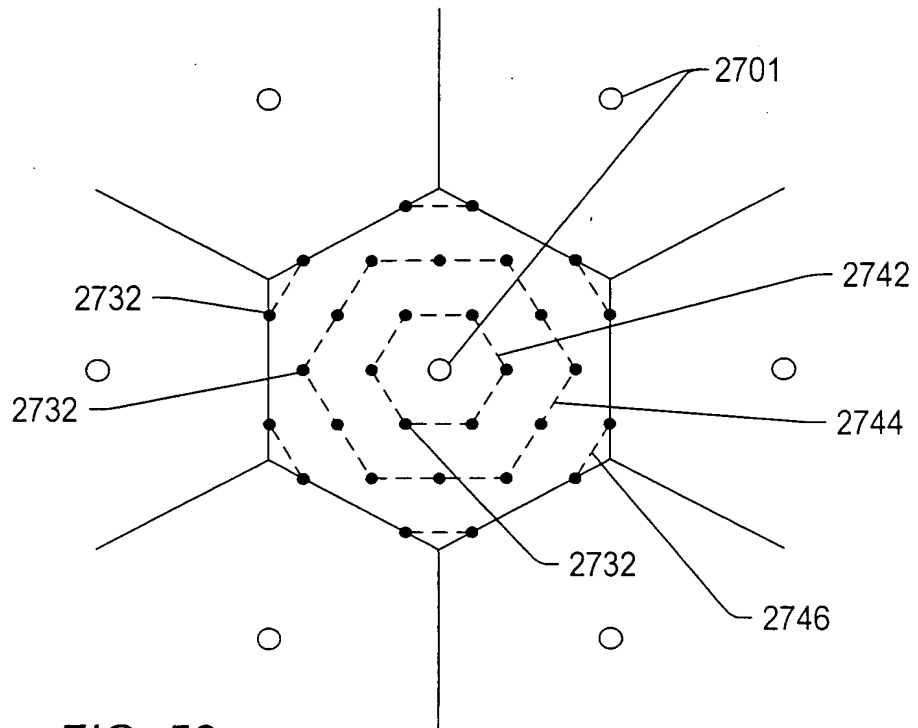


FIG. 52

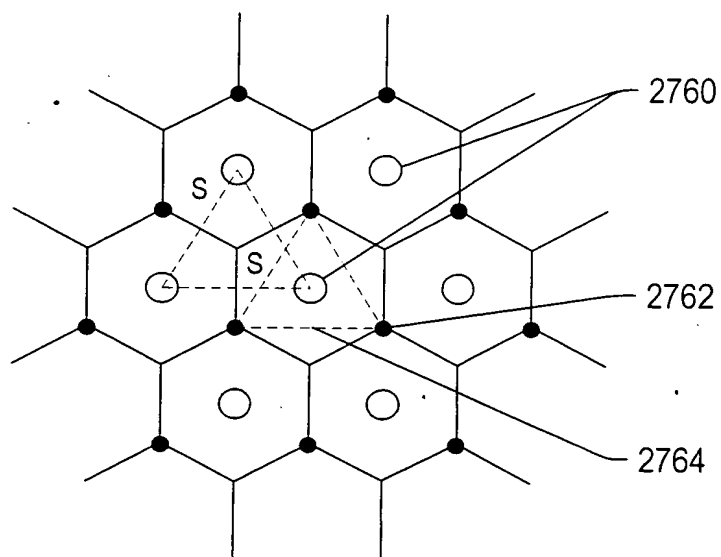


FIG. 53

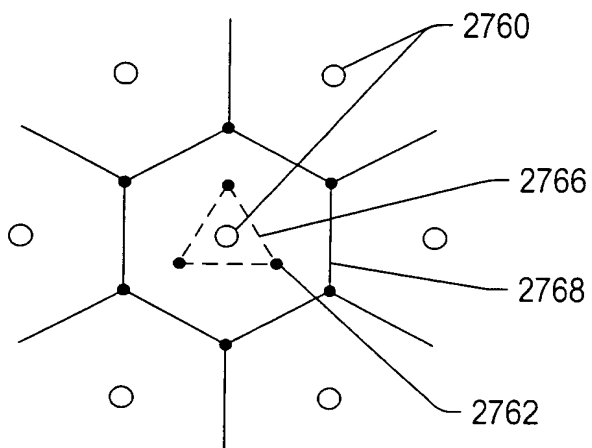


FIG. 54

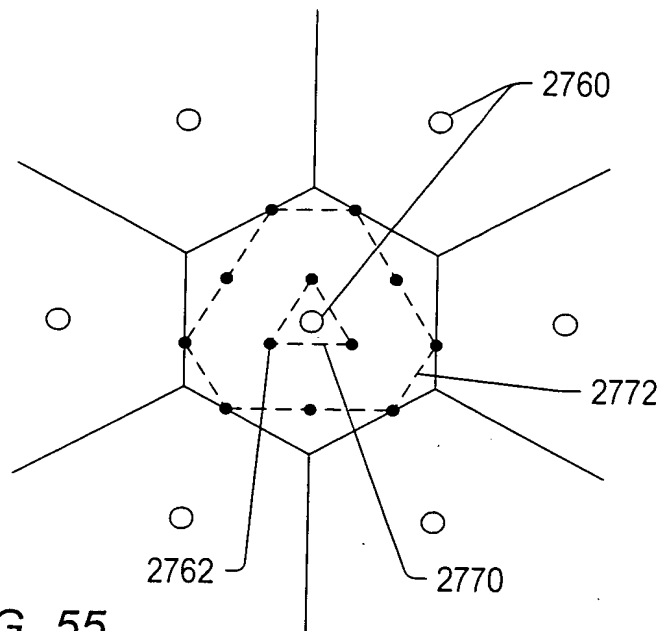


FIG. 55

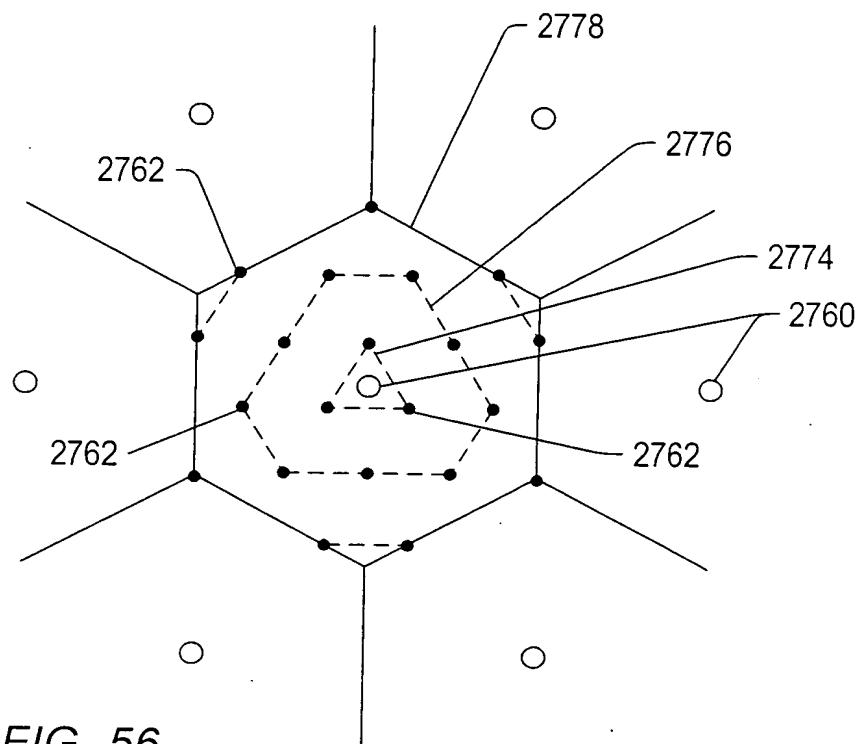


FIG. 56



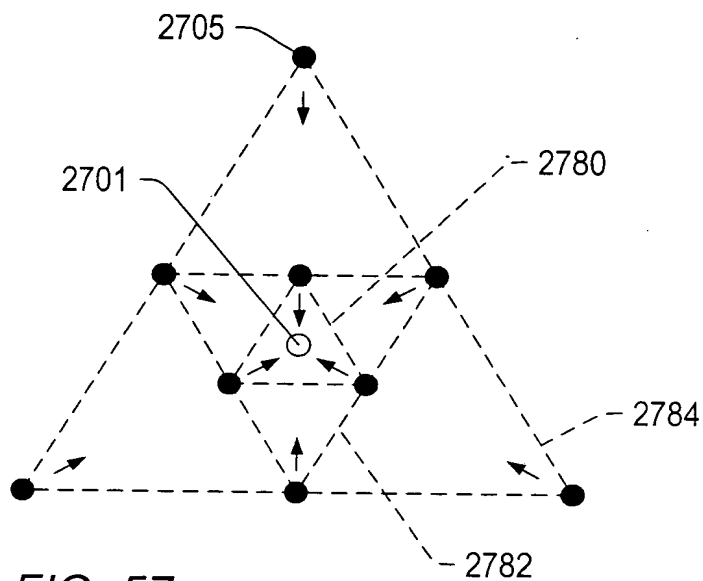


FIG. 57

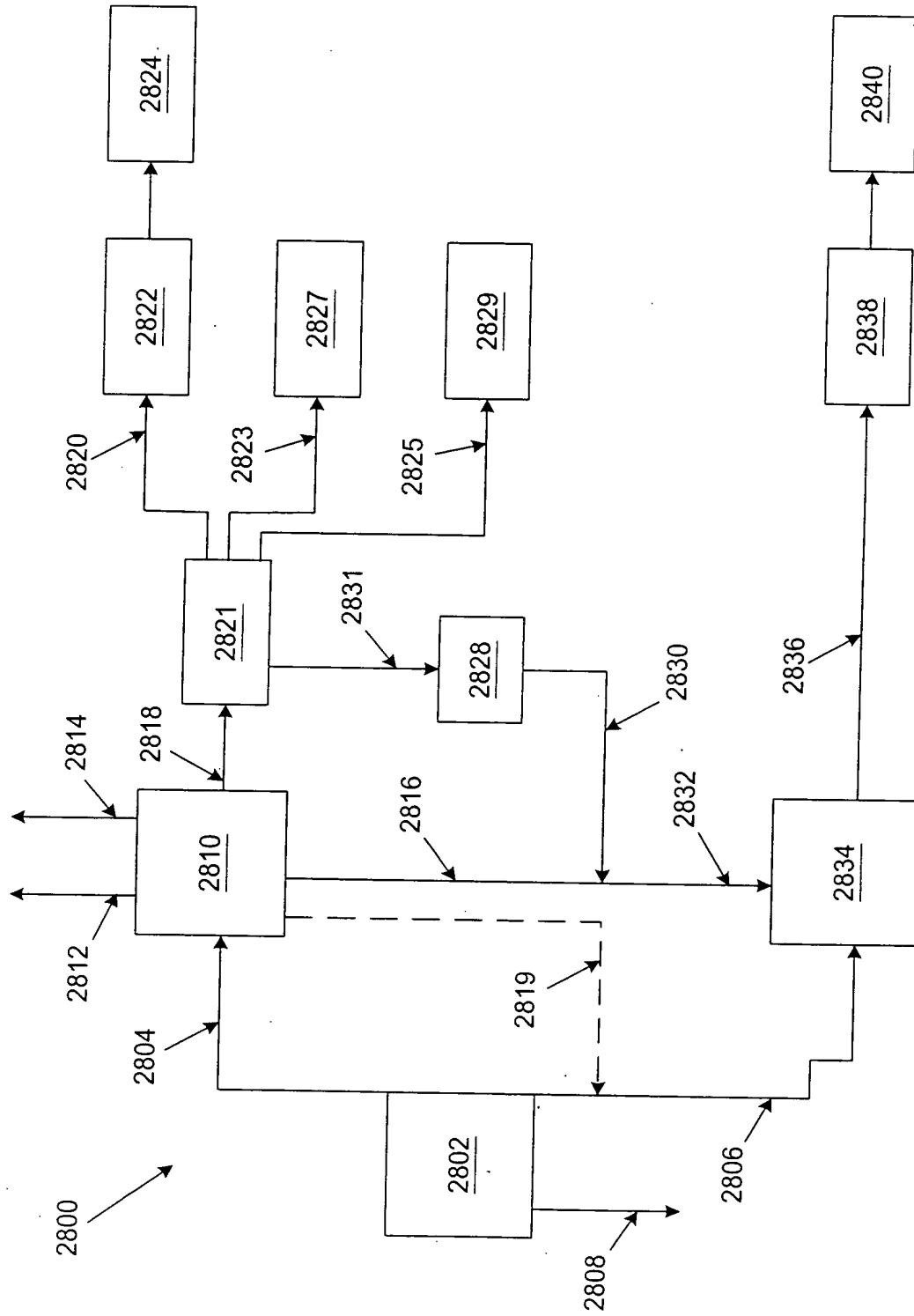


Fig. 58

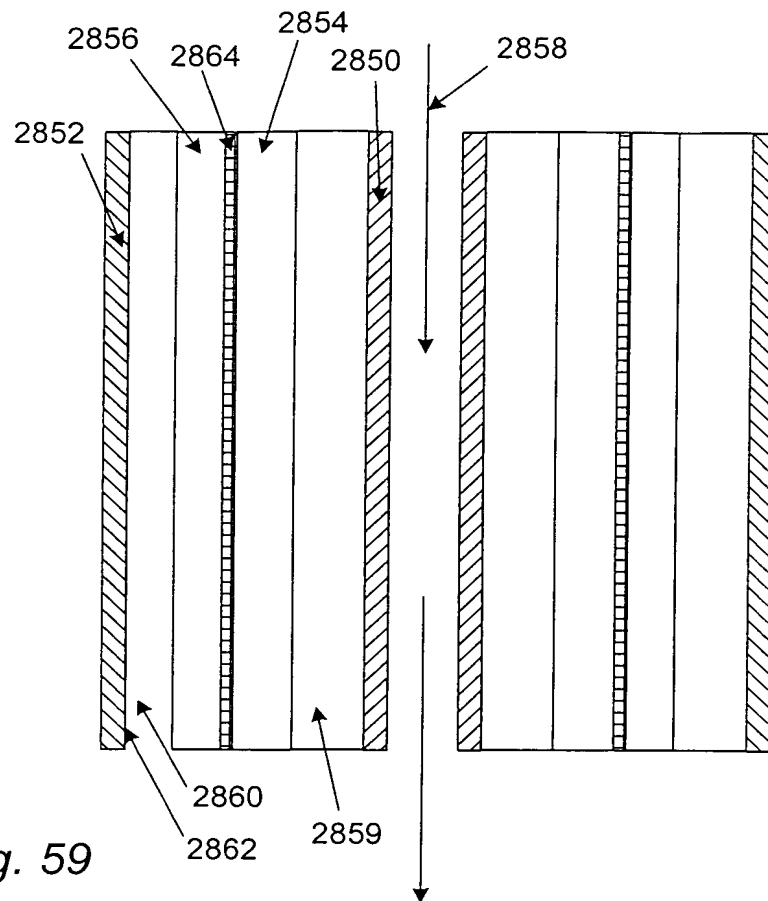


Fig. 59

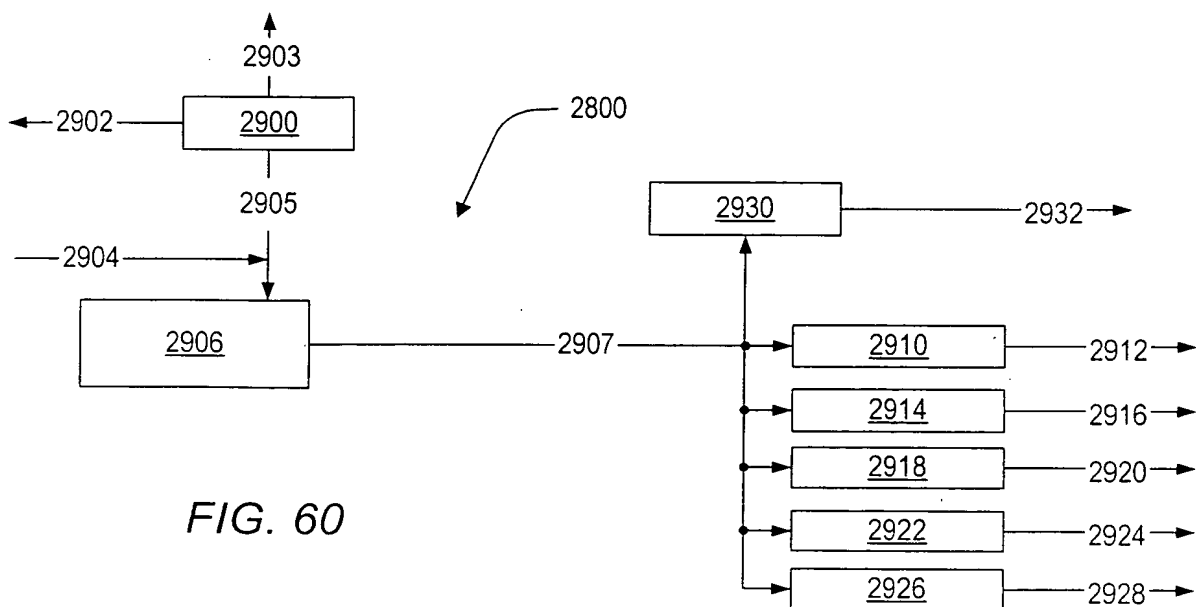


FIG. 60

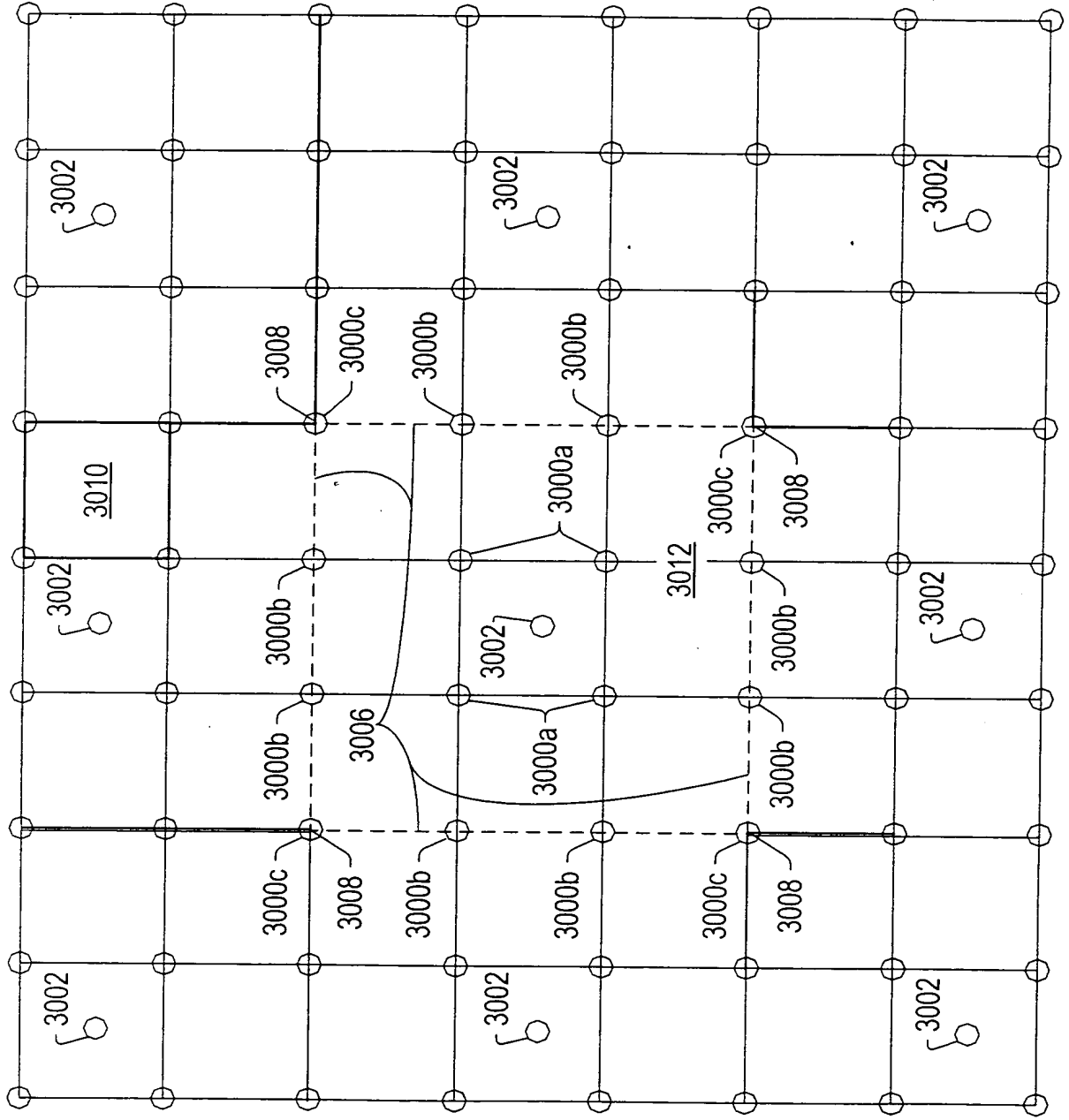


FIG. 61

FIG. 62

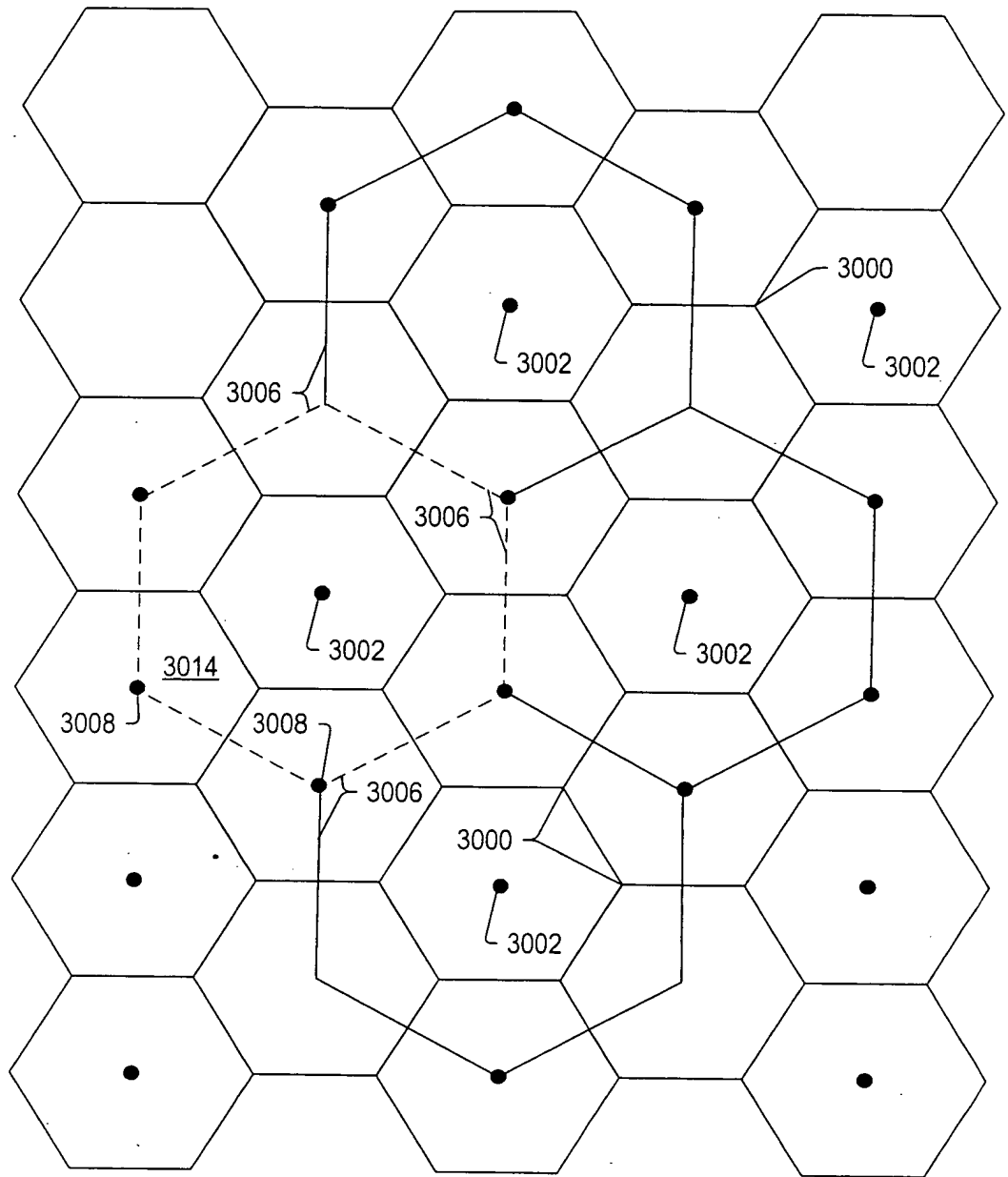


FIG. 62

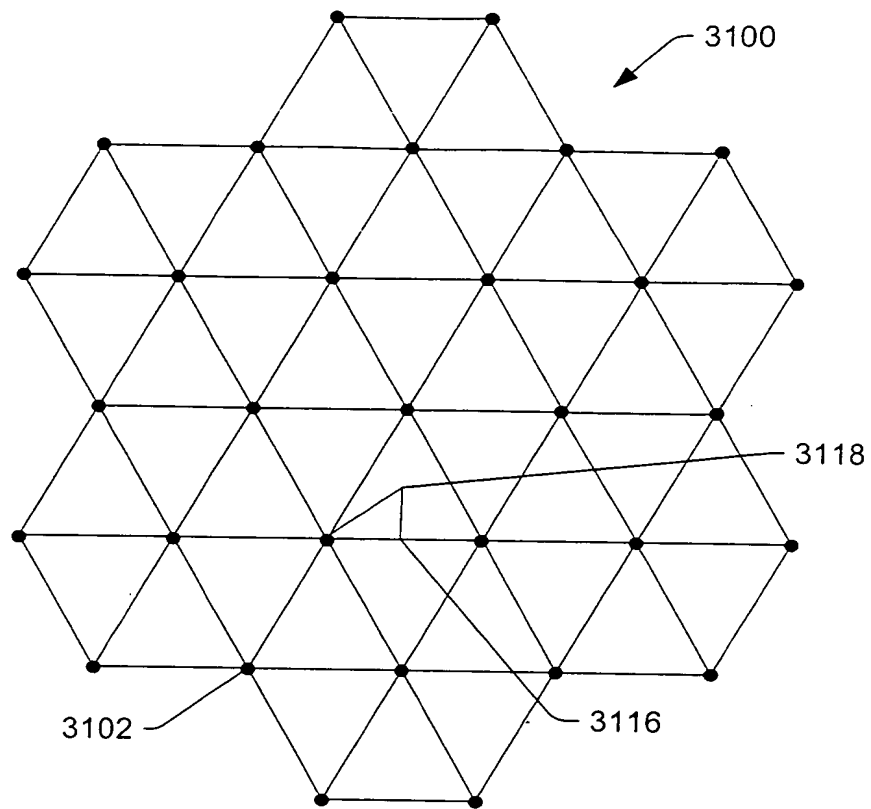


FIG. 63

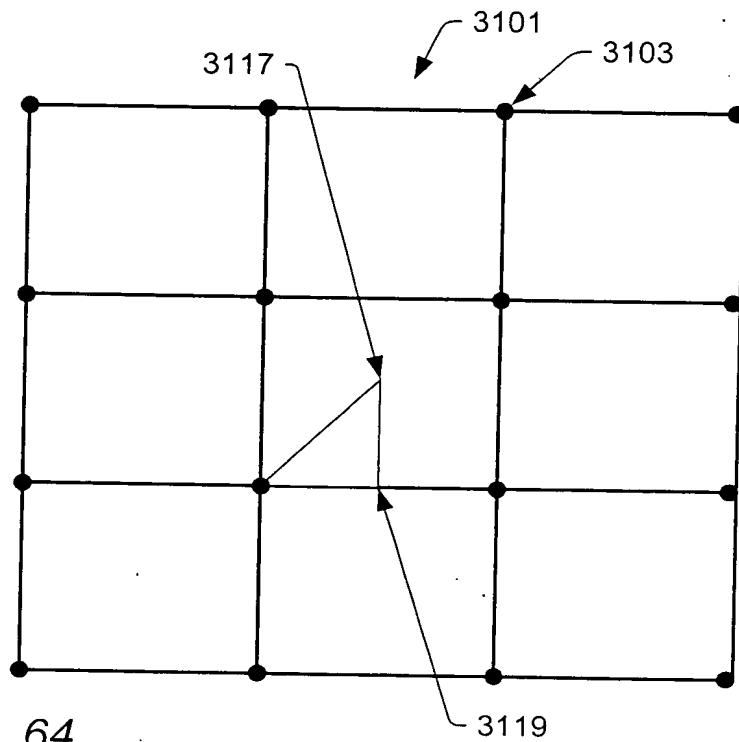


FIG. 64

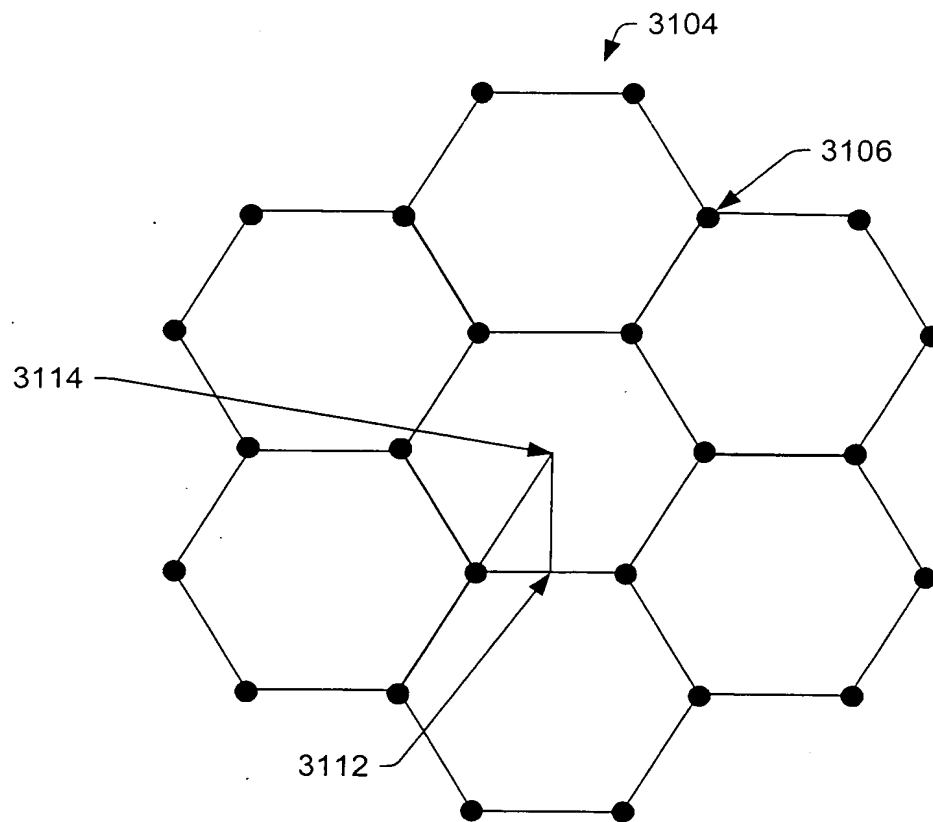


FIG. 65

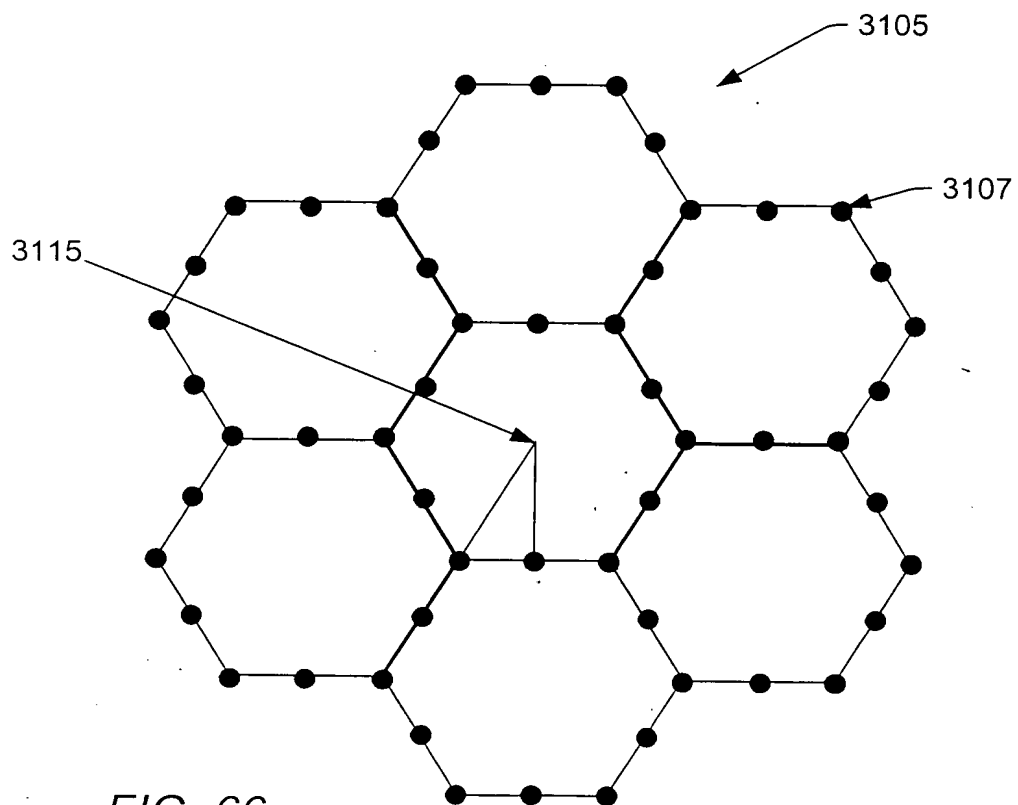


FIG. 66

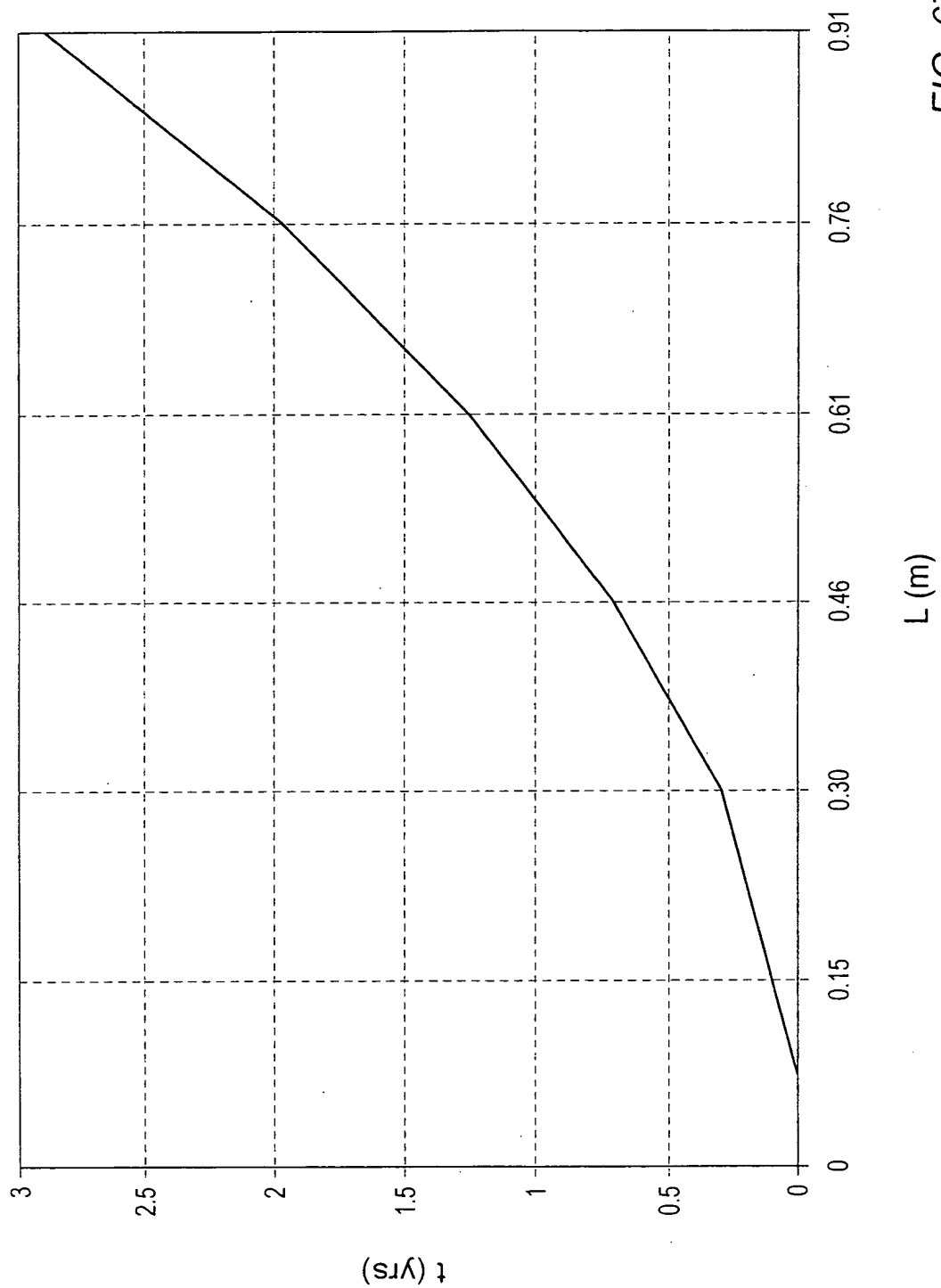


FIG. 67



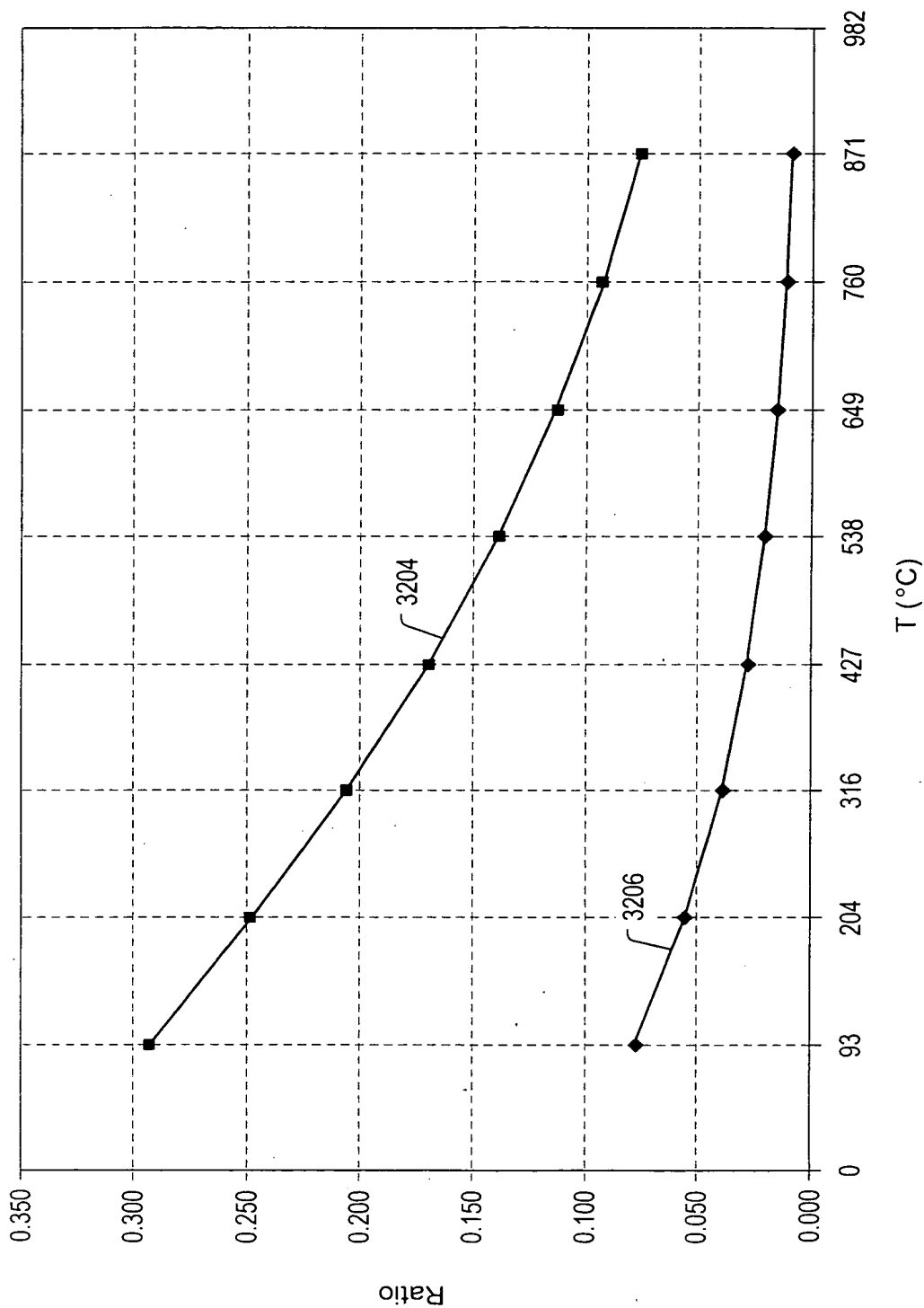


FIG. 68

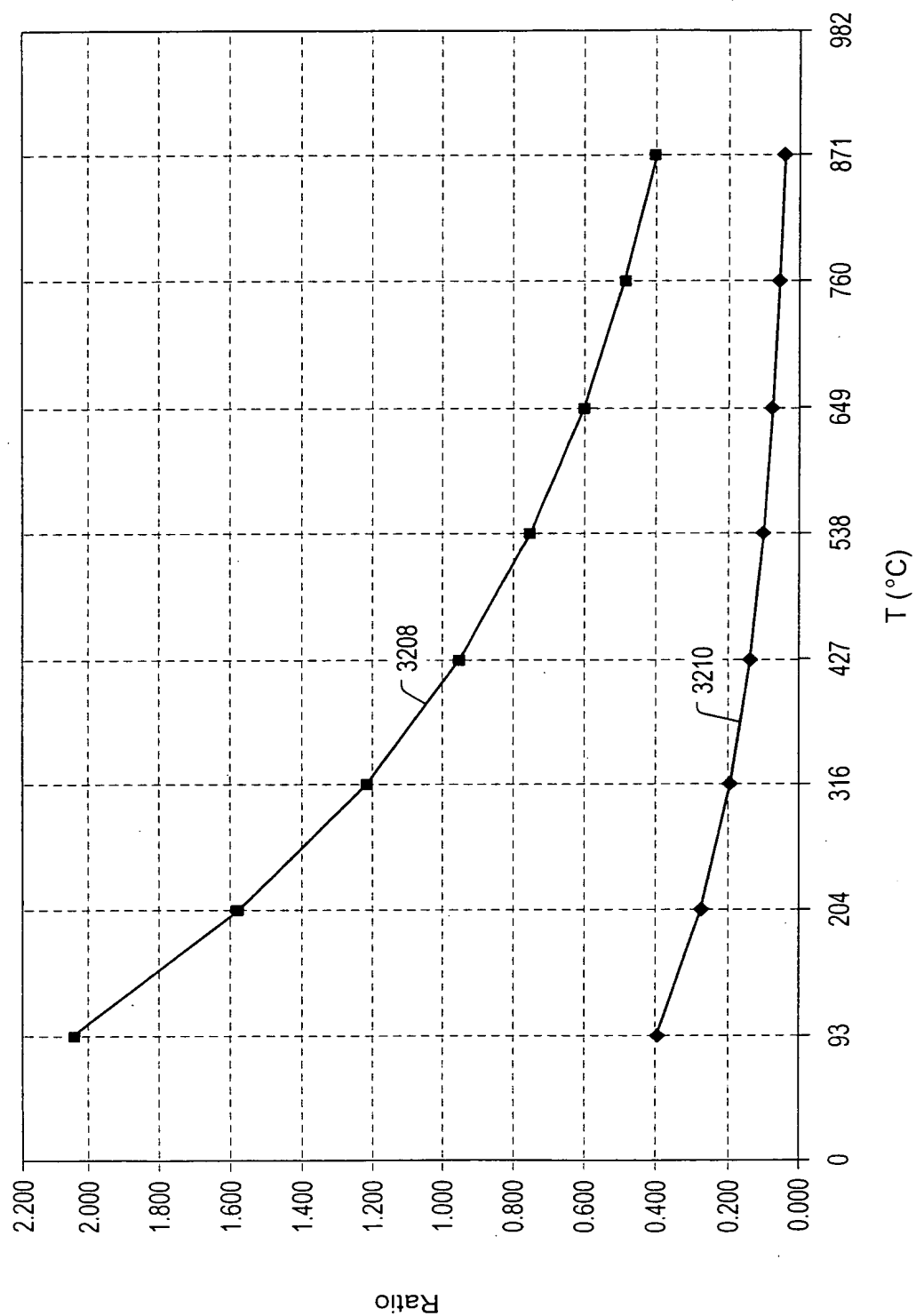


FIG. 69

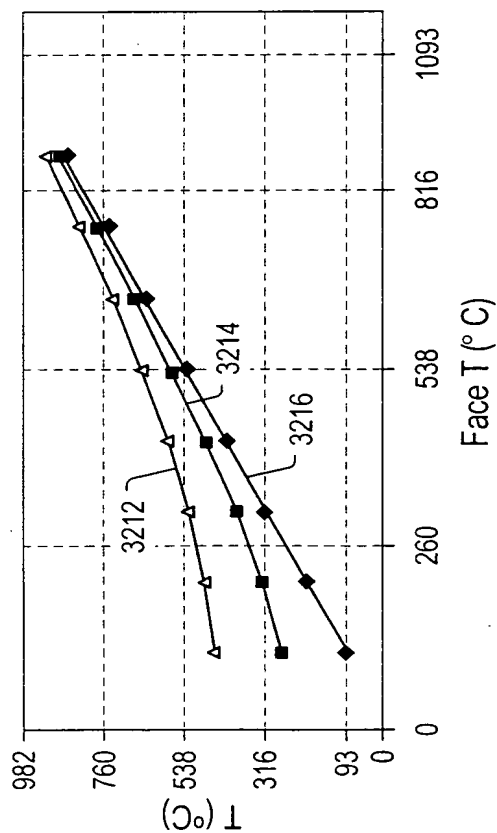


FIG. 70

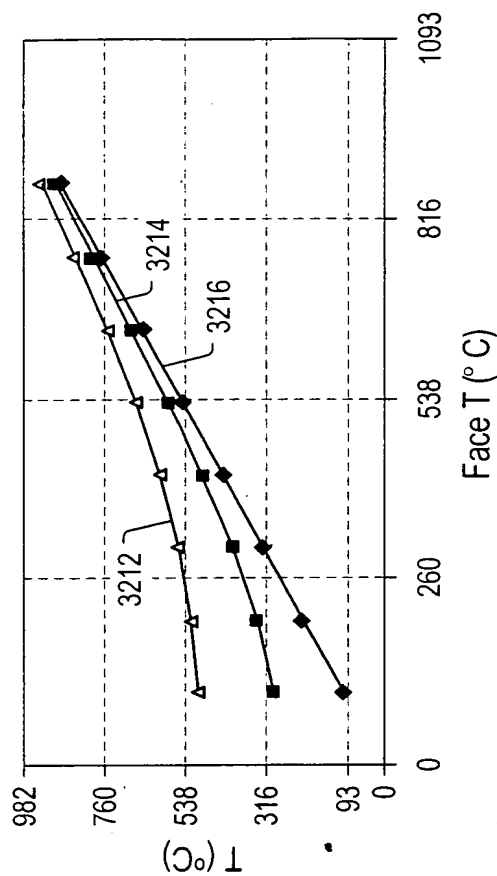


FIG. 71

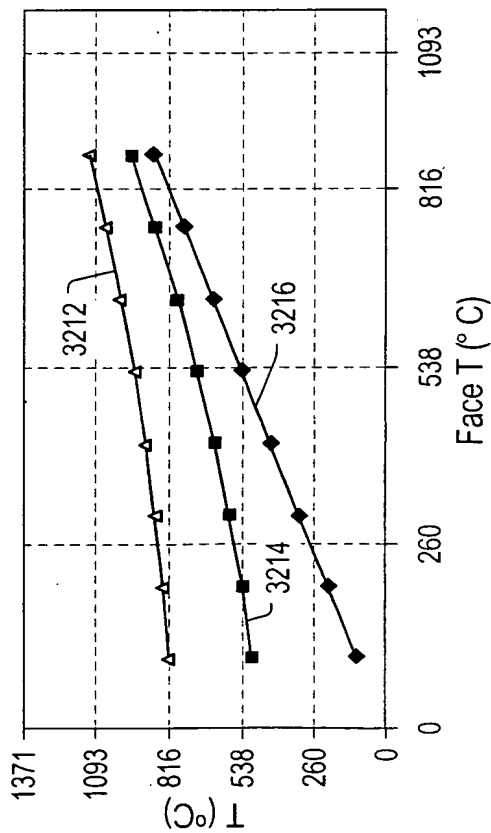


FIG. 72

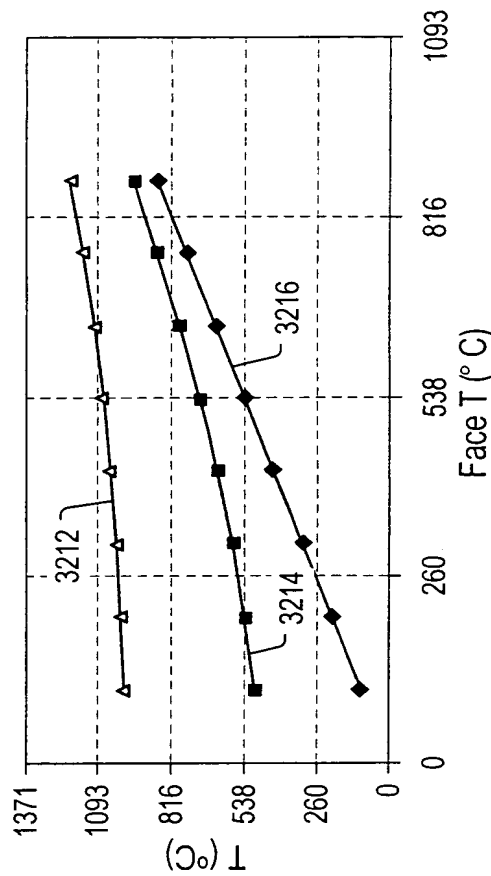


FIG. 73

FIG. 74 is a schematic diagram of a system 3300 for measuring the rate of change of a property of a fluid. The system 3300 includes a fluid source 3302, a pump 3304, a pressure sensor 3306, a flow meter 3308, a valve 3310, a chamber 3312, a heater 3314, a thermocouple 3316, a data acquisition system 3318, and a display 3320. The fluid source 3302 is connected to the pump 3304, which is connected to the pressure sensor 3306. The pressure sensor 3306 is connected to the flow meter 3308, which is connected to the valve 3310. The valve 3310 is connected to the chamber 3312, which is connected to the heater 3314. The heater 3314 is connected to the thermocouple 3316, which is connected to the data acquisition system 3318. The data acquisition system 3318 is connected to the display 3320. The system 3300 is used to measure the rate of change of a property of a fluid, such as temperature, pressure, or flow rate.

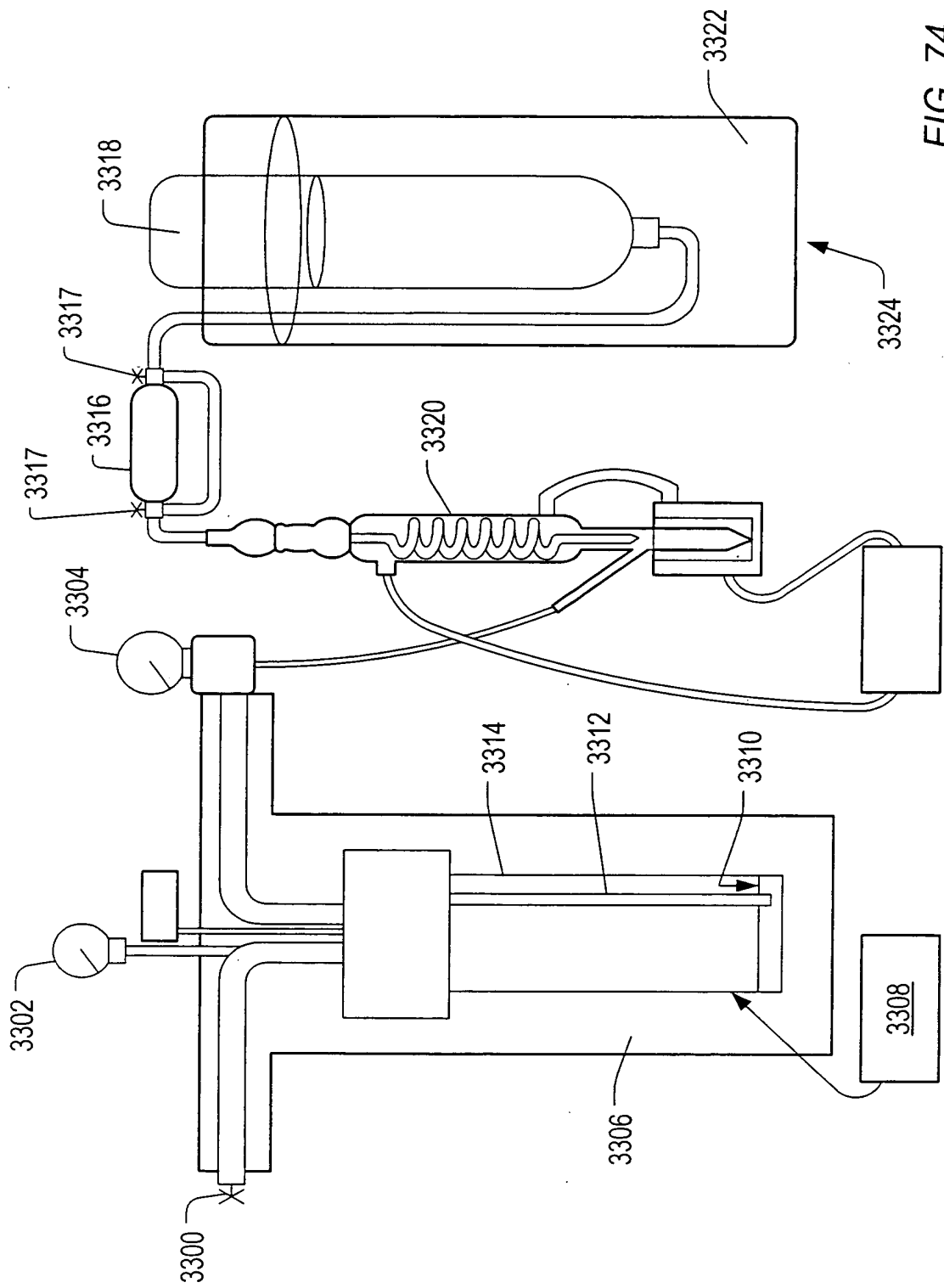


FIG. 74

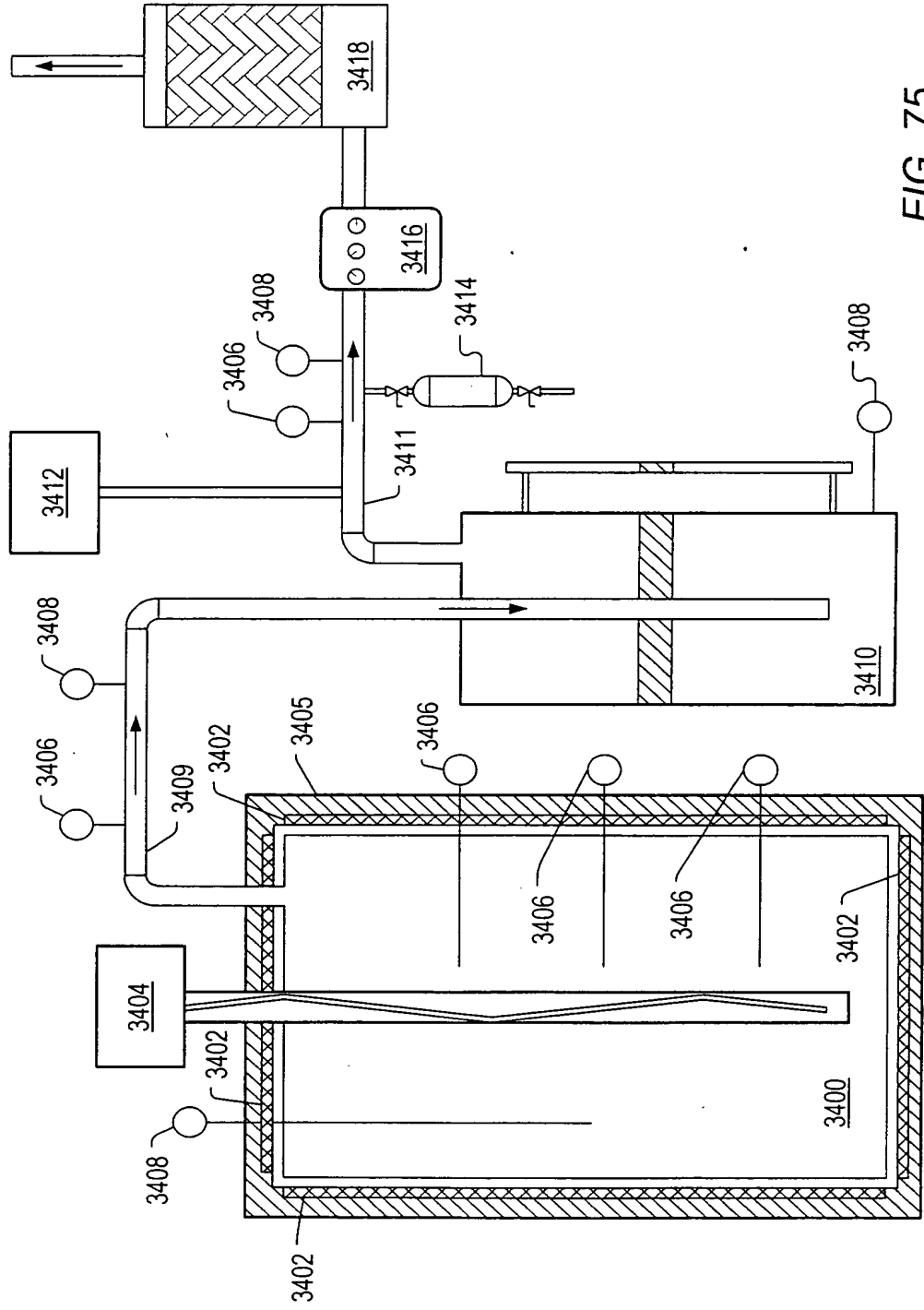


FIG. 75

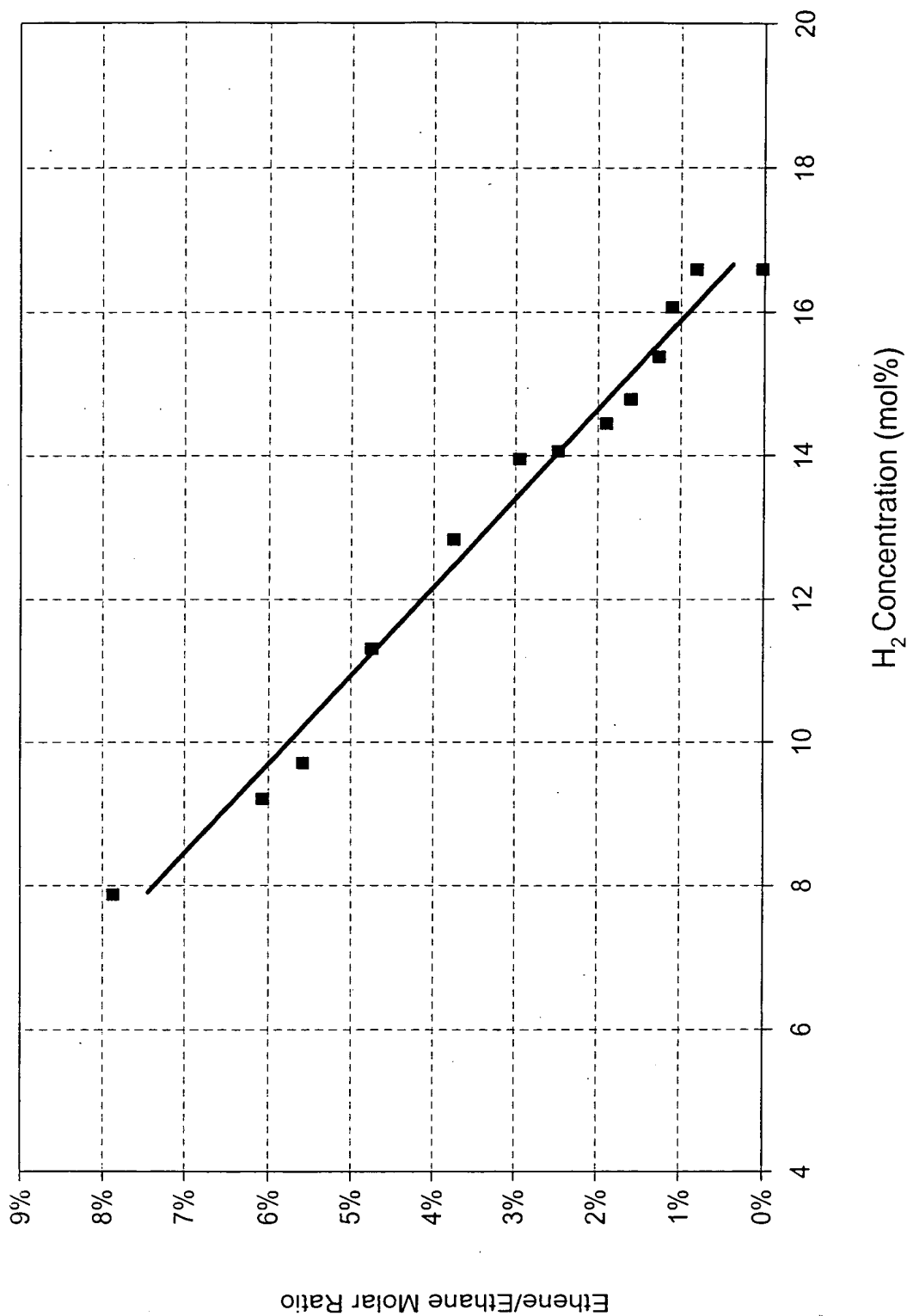


FIG. 76

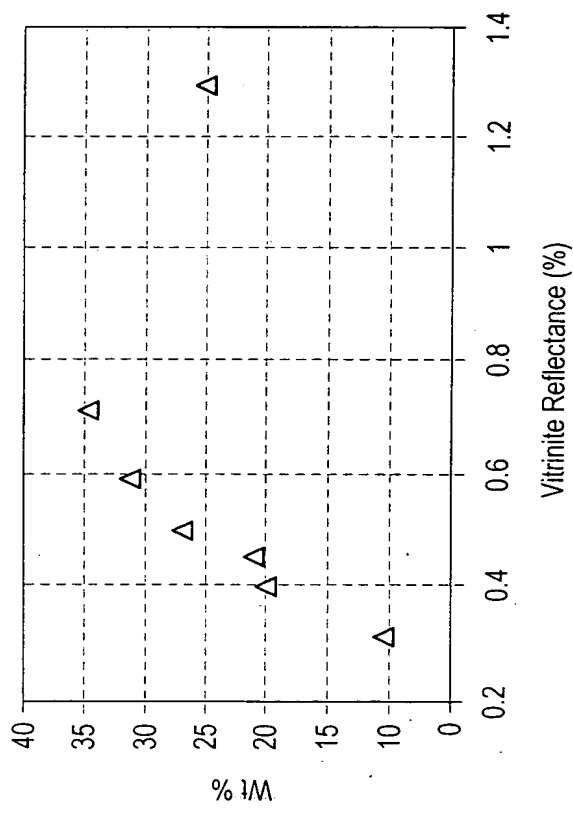


FIG. 77

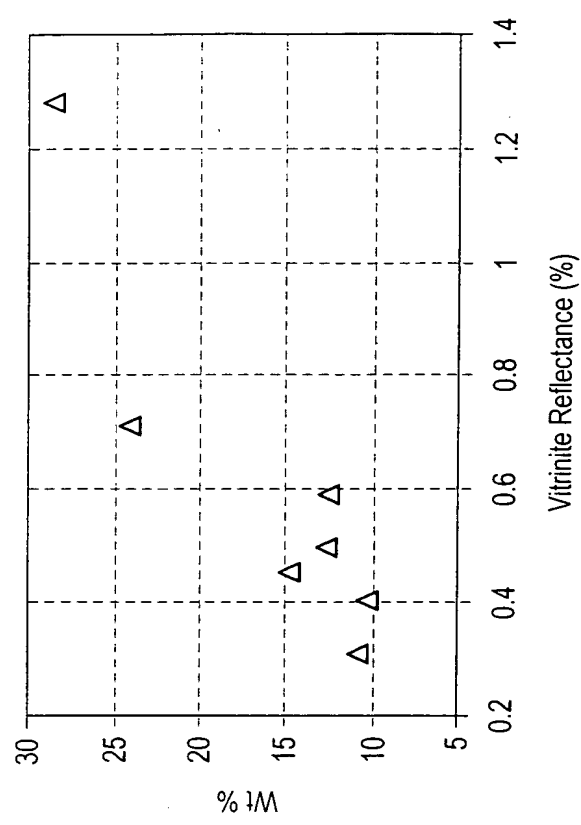


FIG. 78

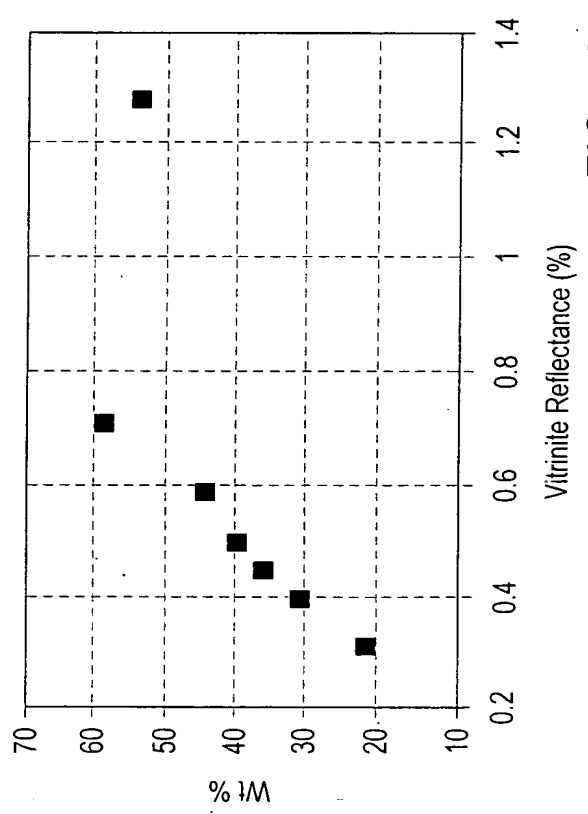


FIG. 79

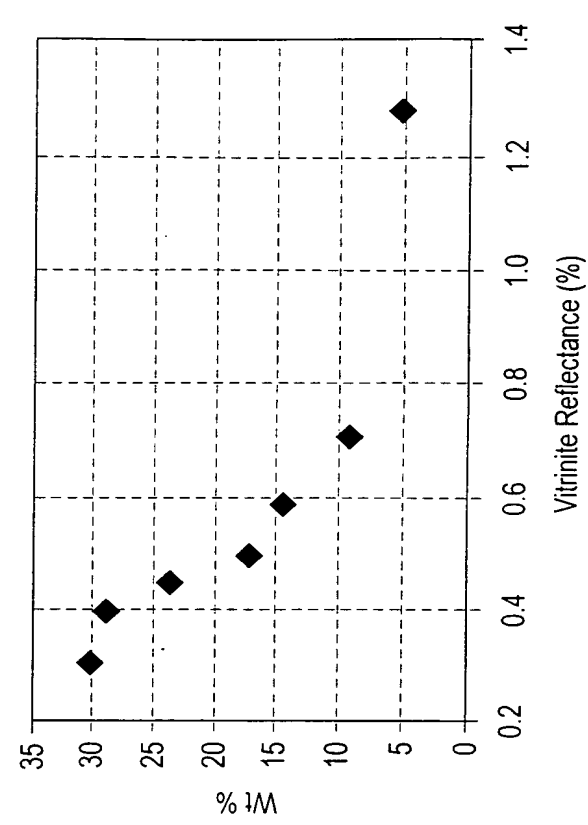


FIG. 80

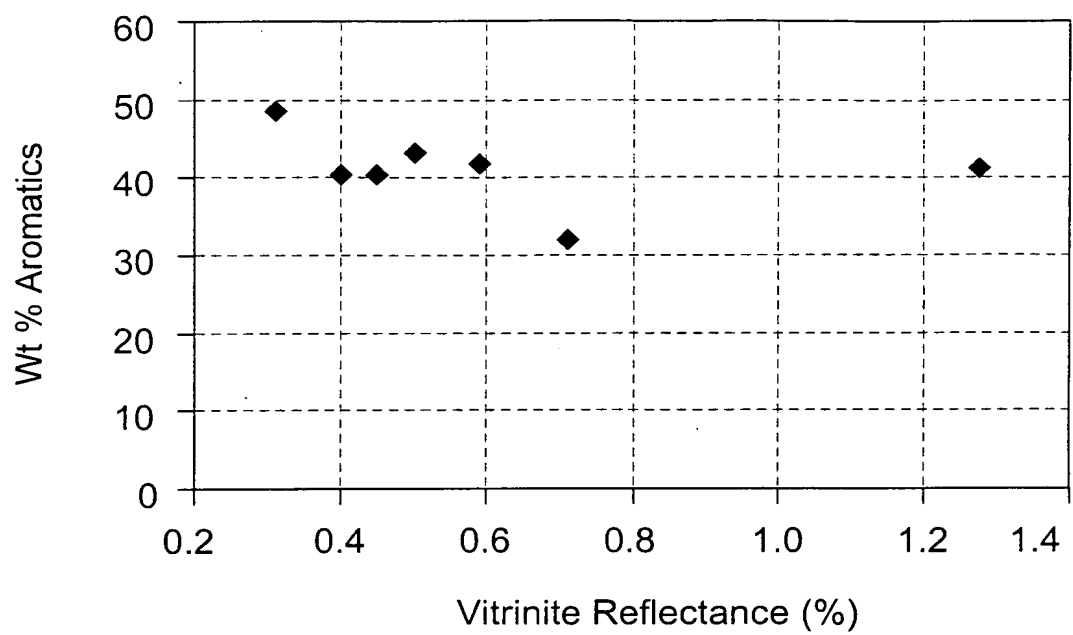


FIG. 81

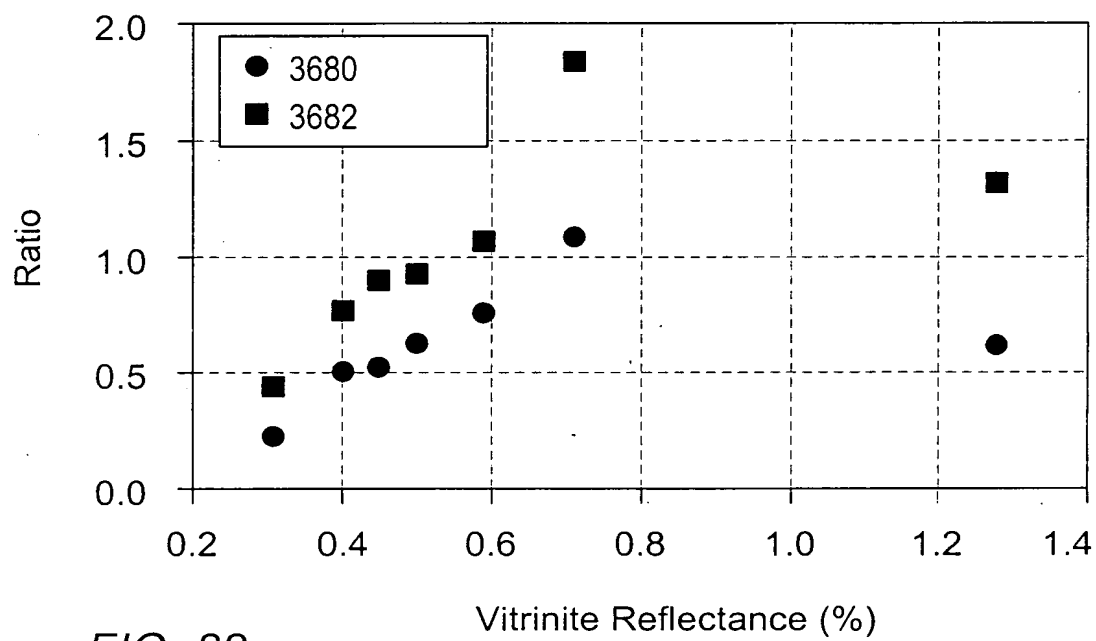
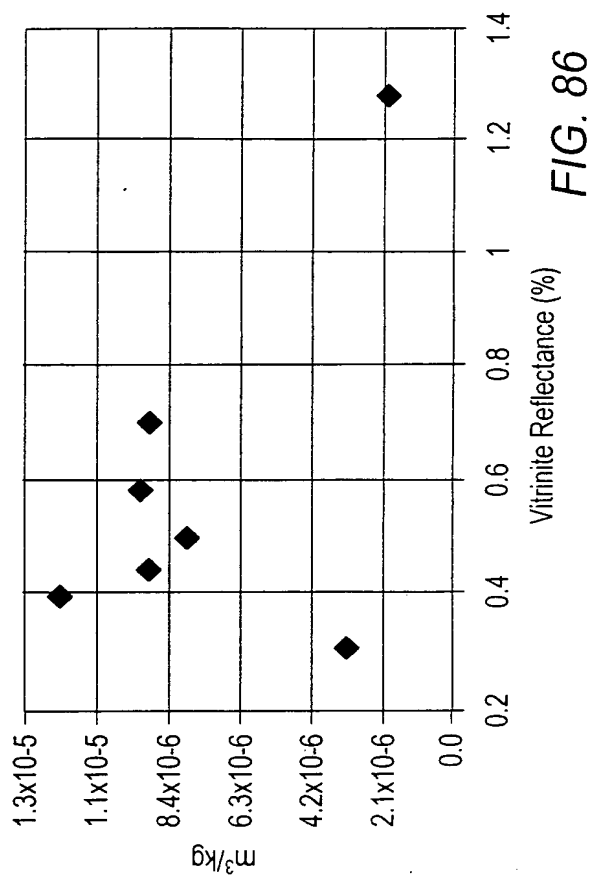
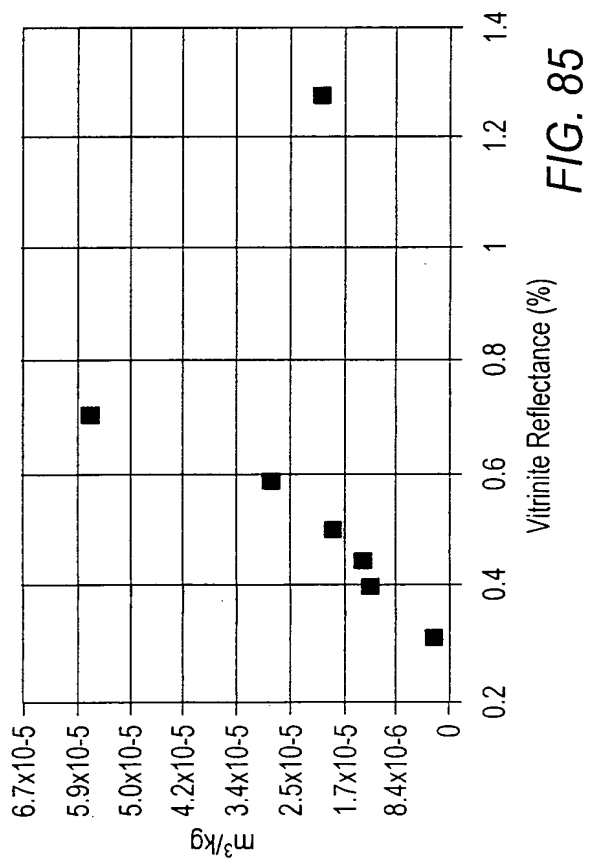
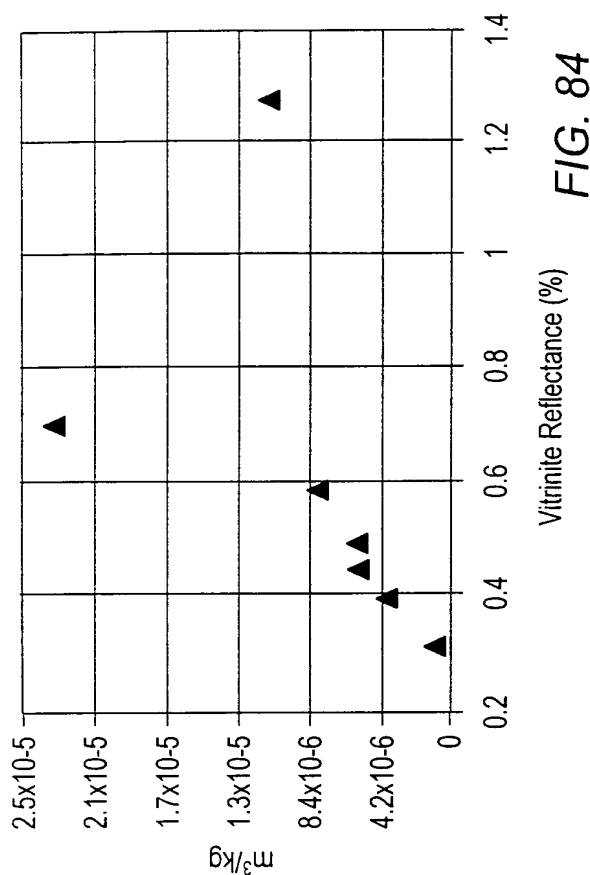
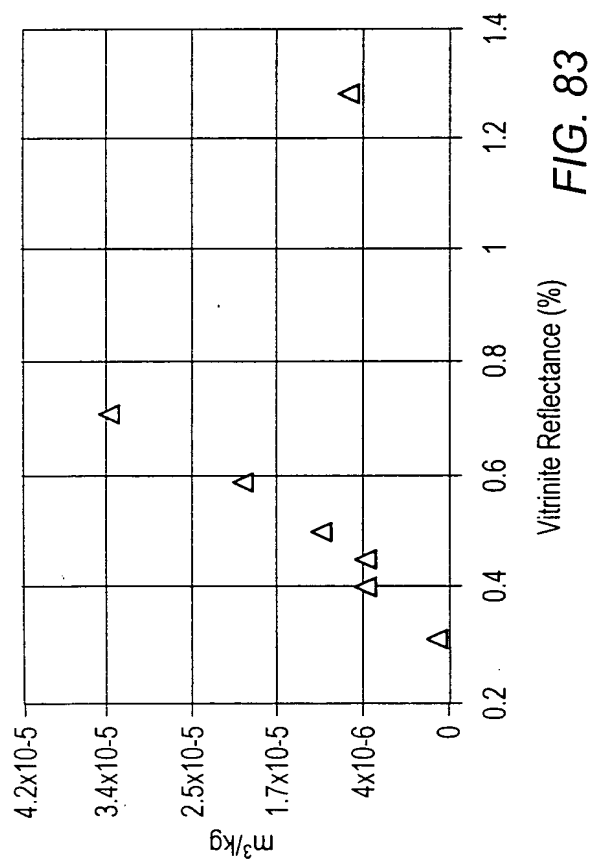


FIG. 82





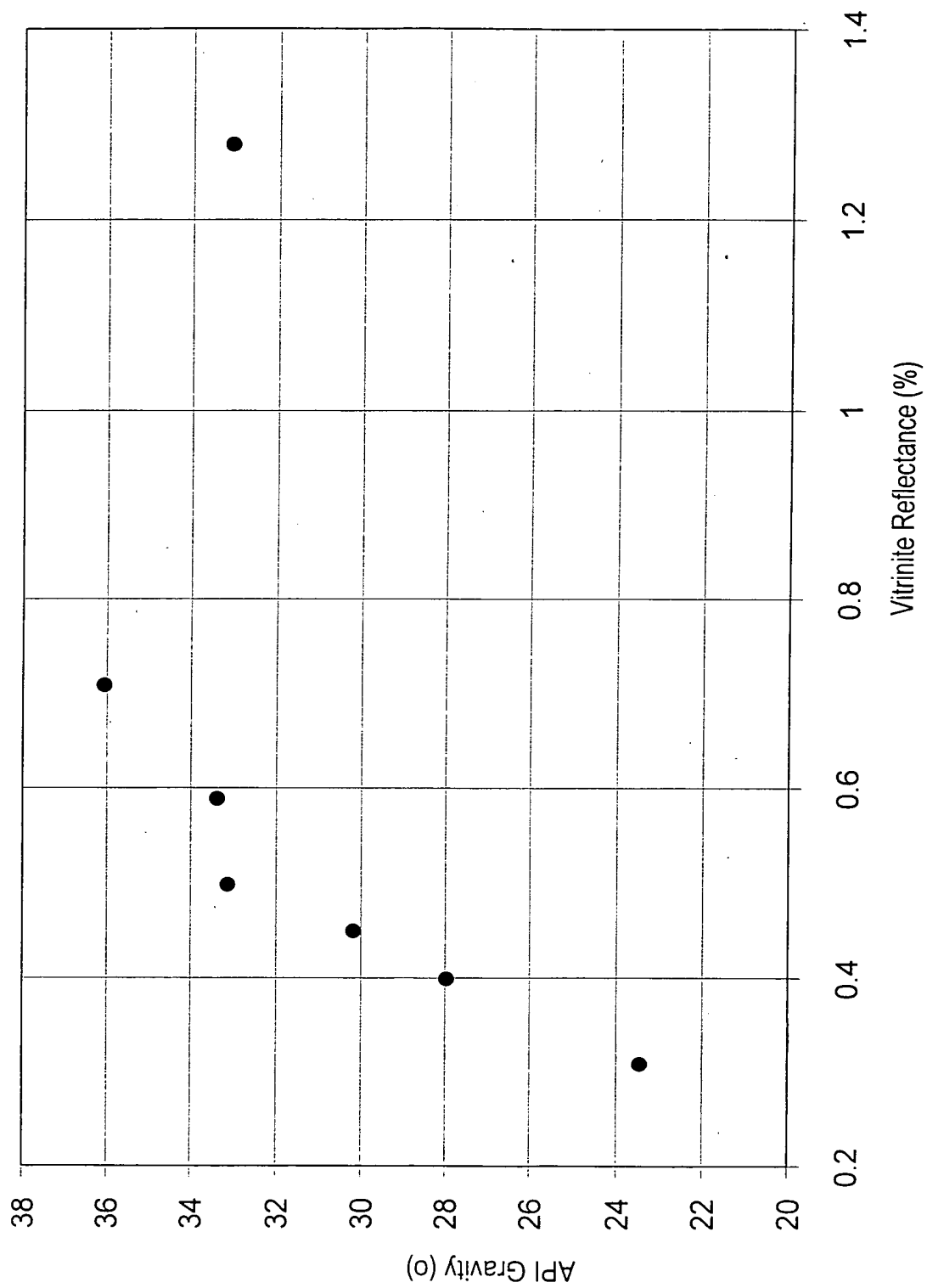
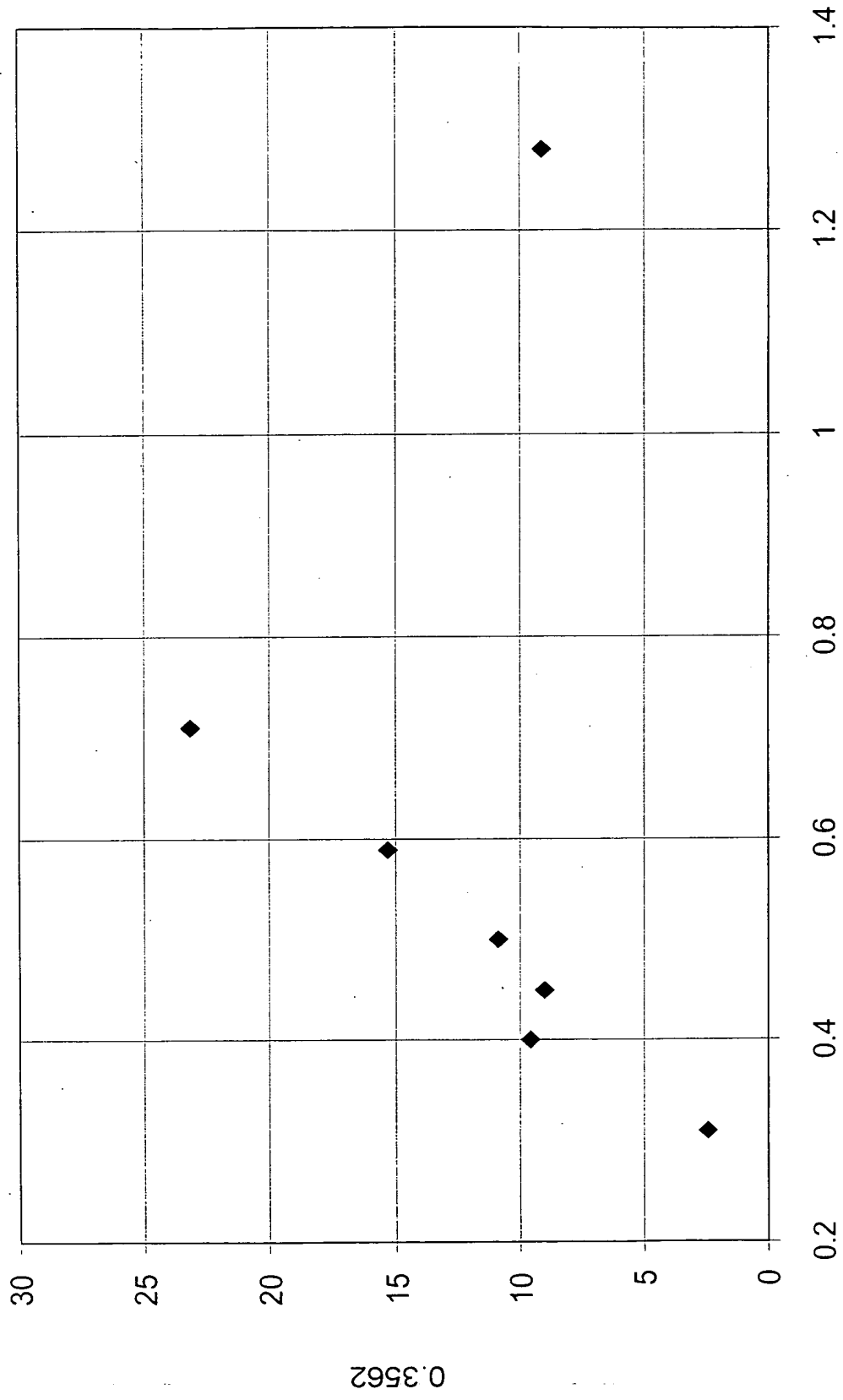


FIG. 87



Vitrinite Reflectance (%)

FIG. 88

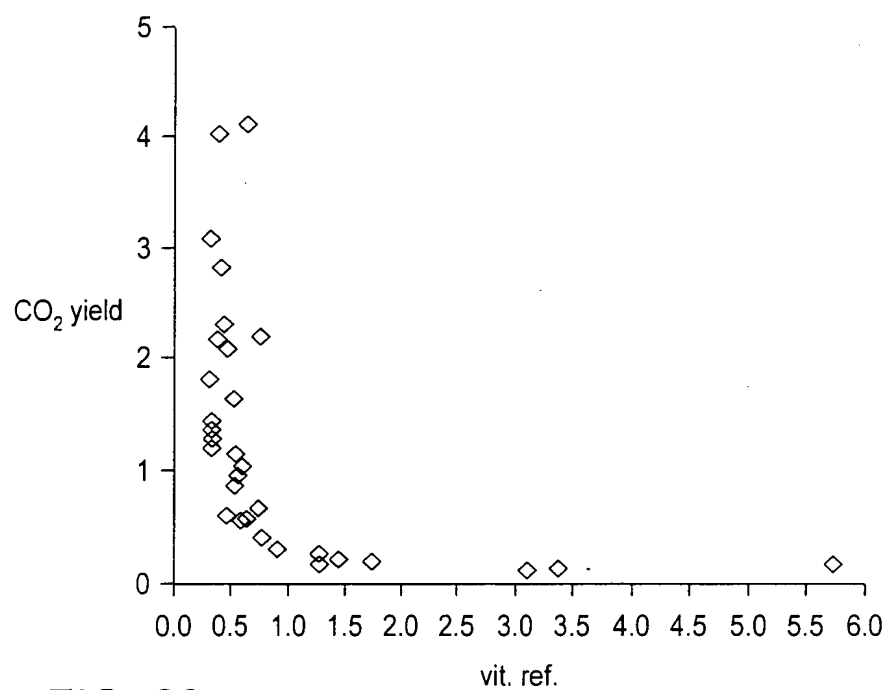


FIG. 89

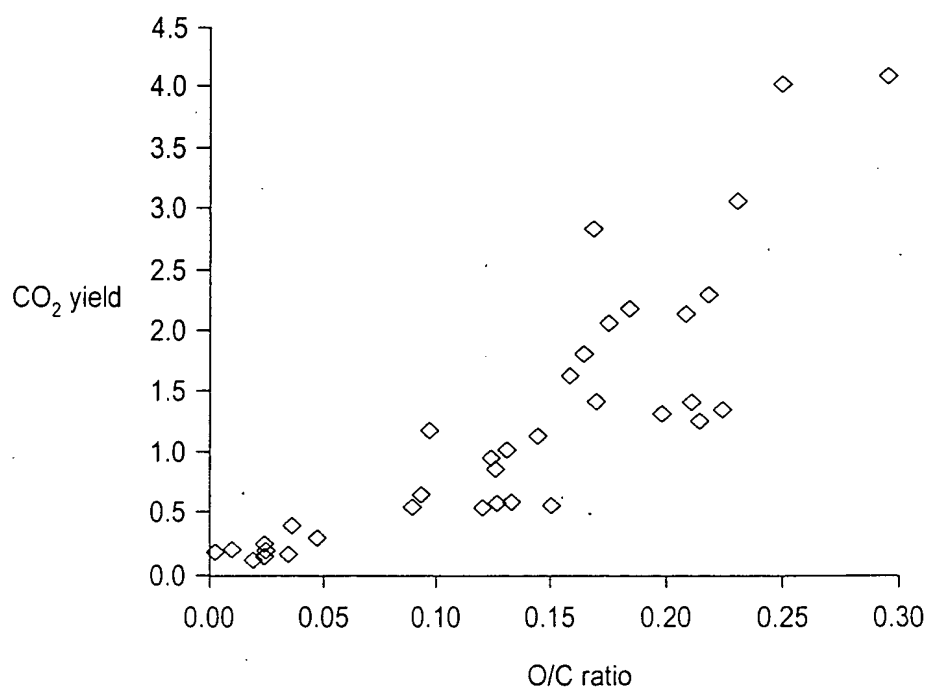


FIG. 90

FIG. 91 is a schematic diagram of a system for processing a material. The system includes a chamber 3700, a chamber 3710, and a chamber 3718. A material is introduced into chamber 3700 through a source 3704. The material is then processed in chamber 3700 and chamber 3710. The processed material is then introduced into chamber 3718. The system also includes a control system 3712 and a sensor 3714. The sensor 3714 is connected to the control system 3712. The control system 3712 is connected to the chamber 3700 and chamber 3710. The sensor 3714 is also connected to the chamber 3718. The system is configured to process a material in a controlled environment.

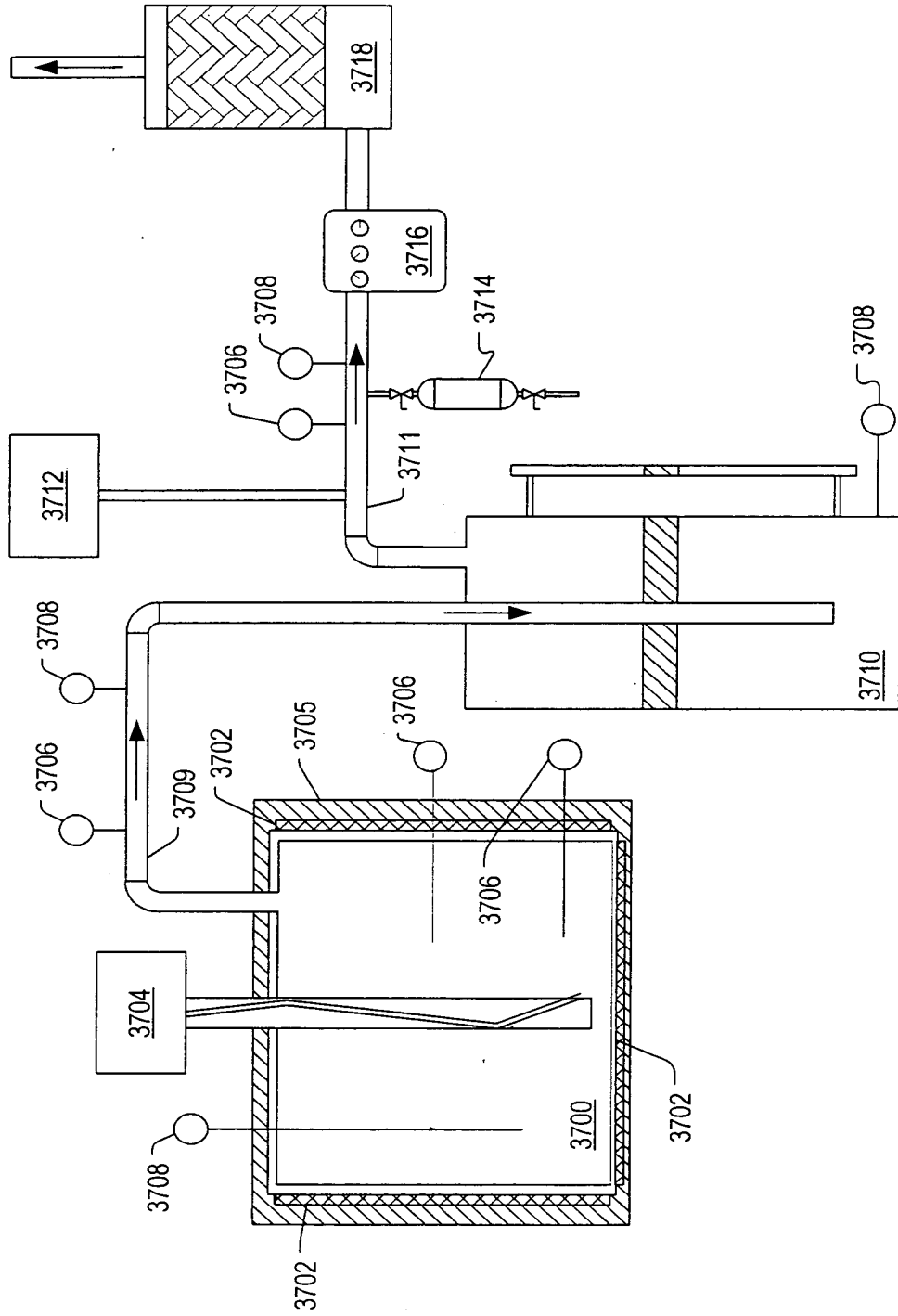


FIG. 91

FIG. 92

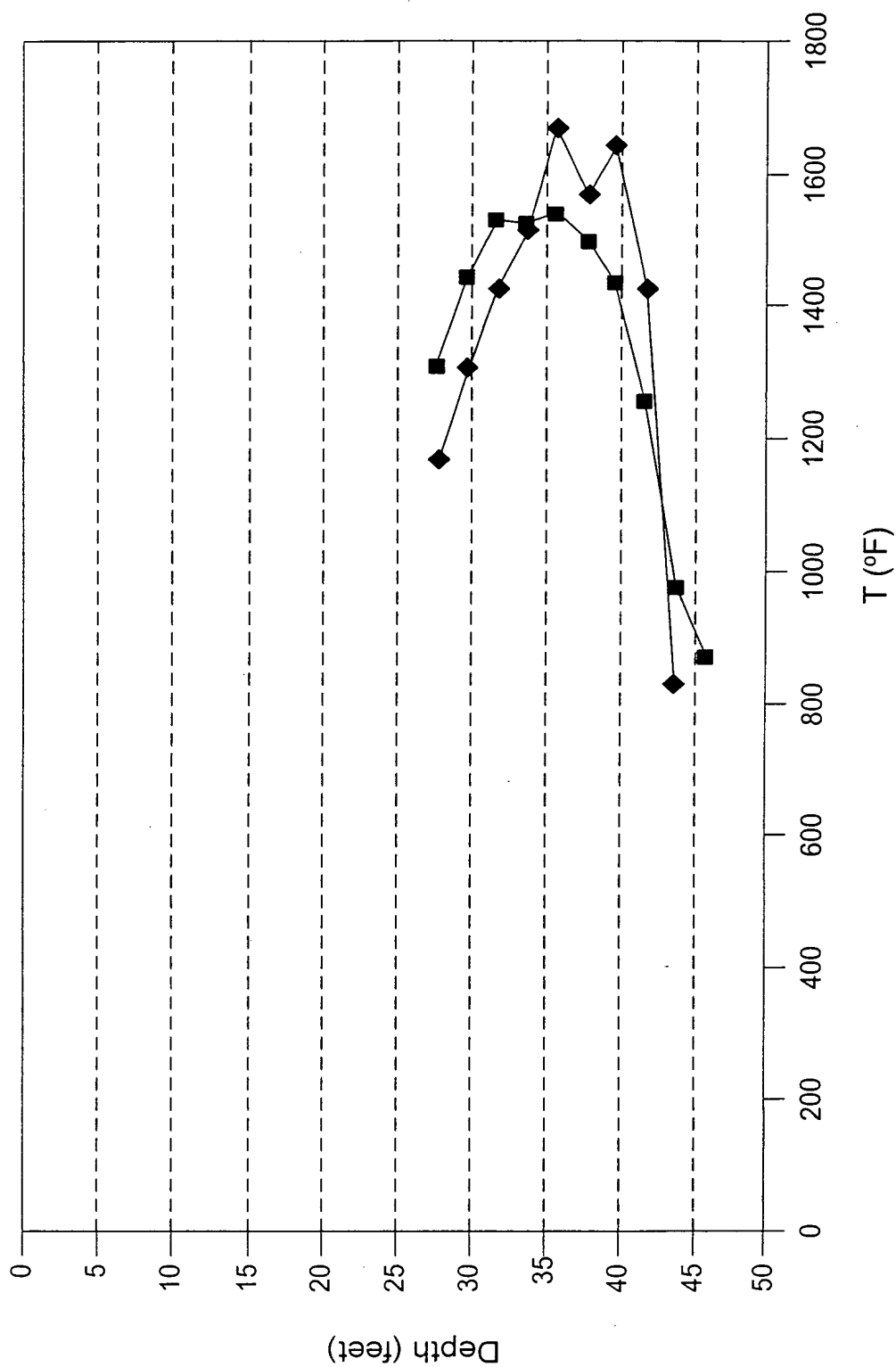


FIG. 92

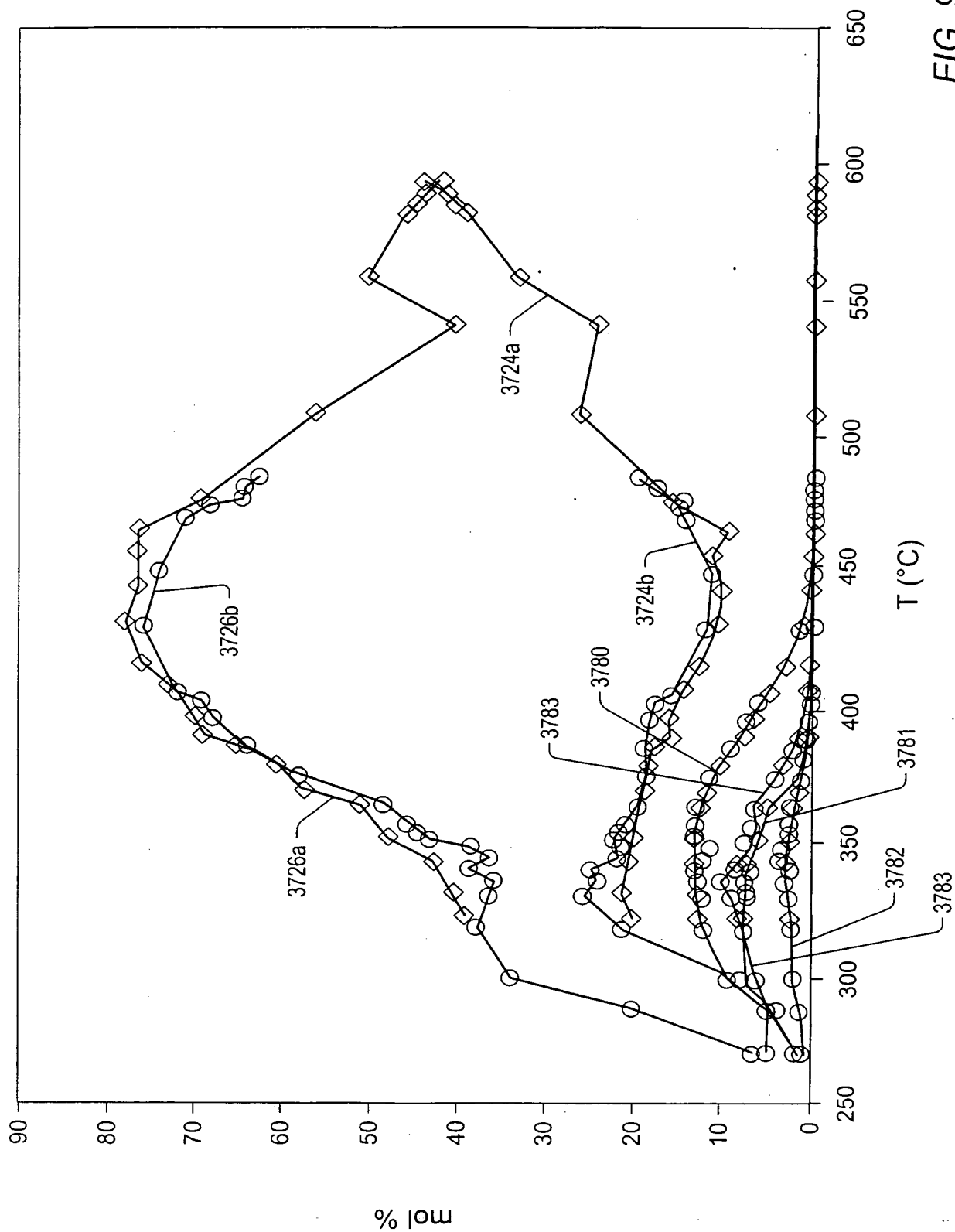


FIG. 93

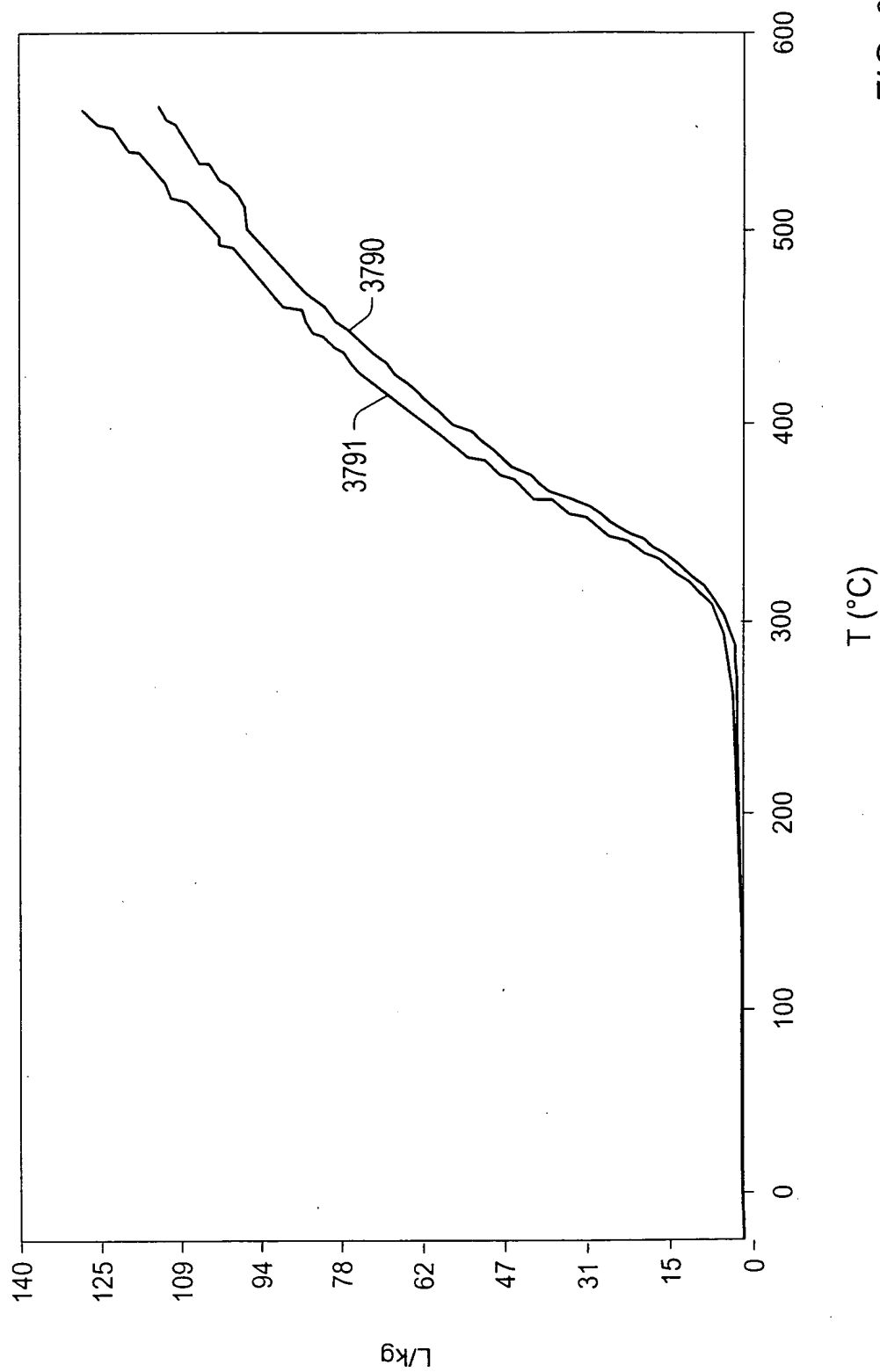


FIG. 94



FIG. 95

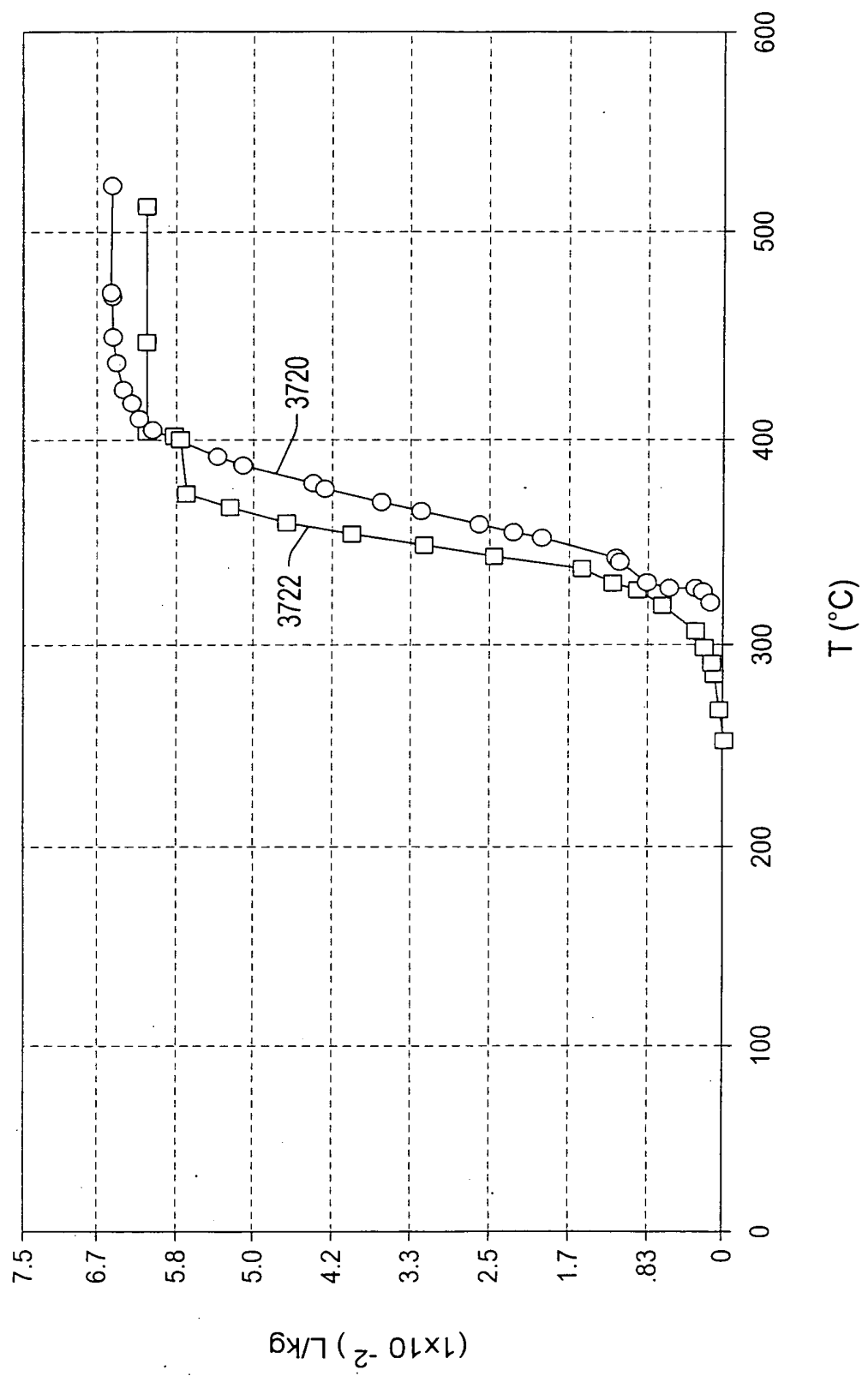


FIG. 95

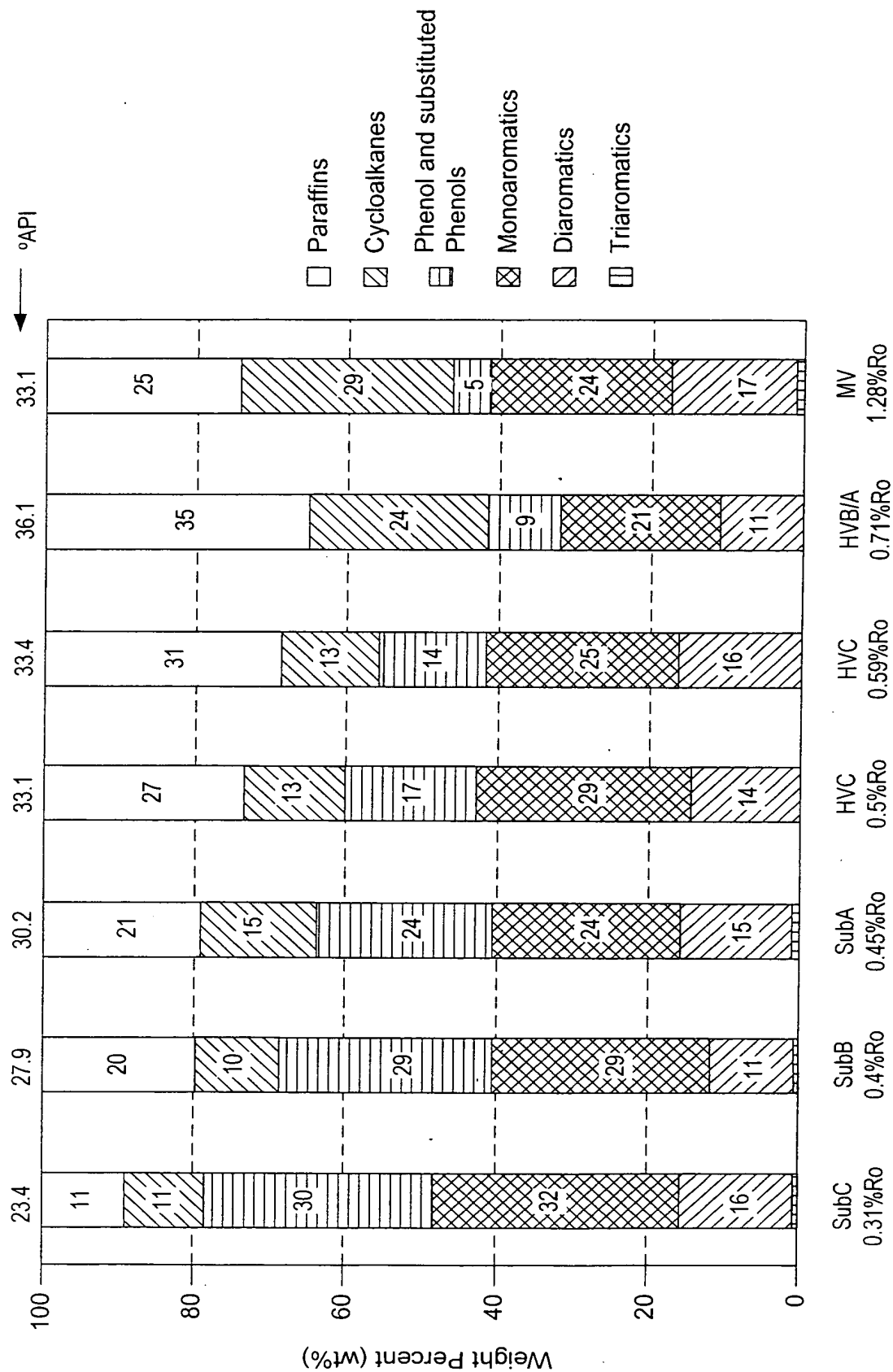
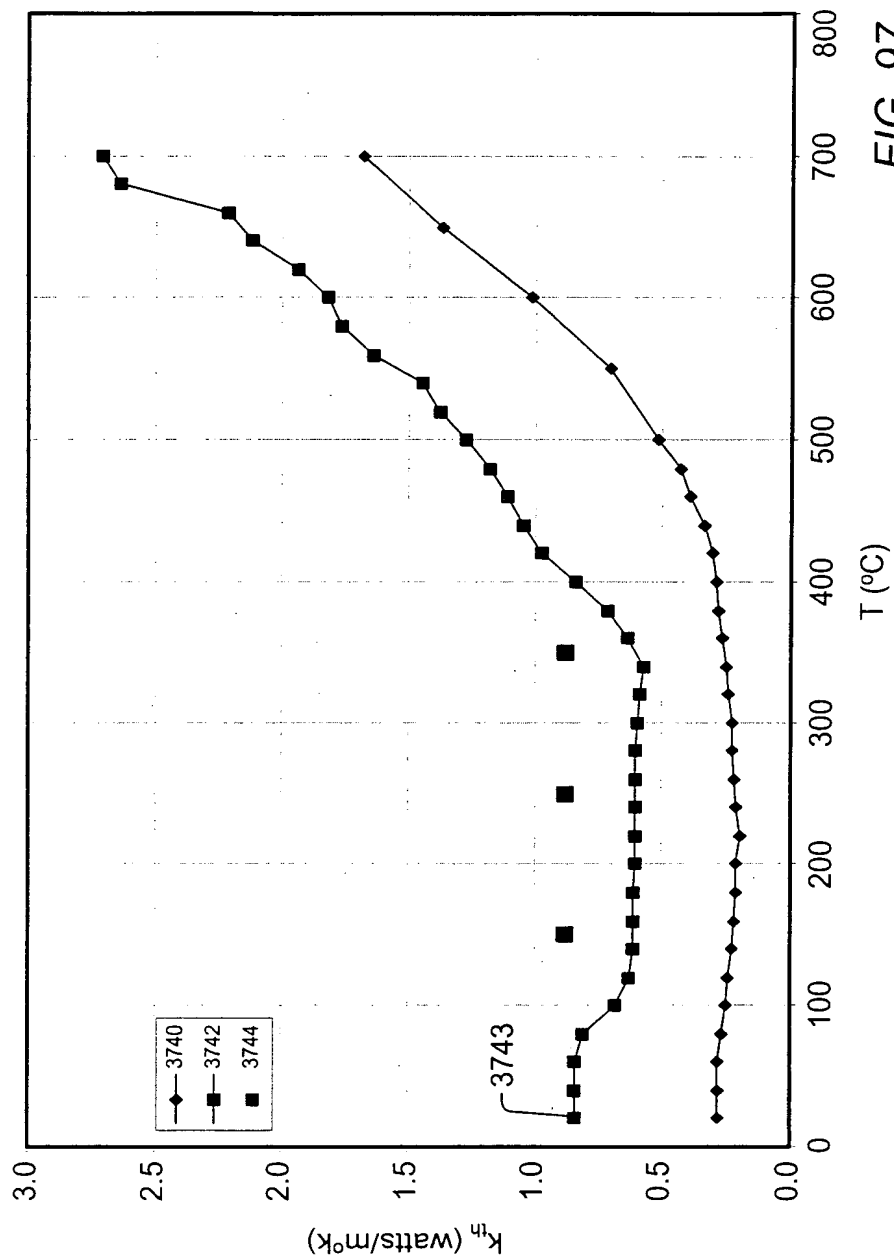


FIG. 96



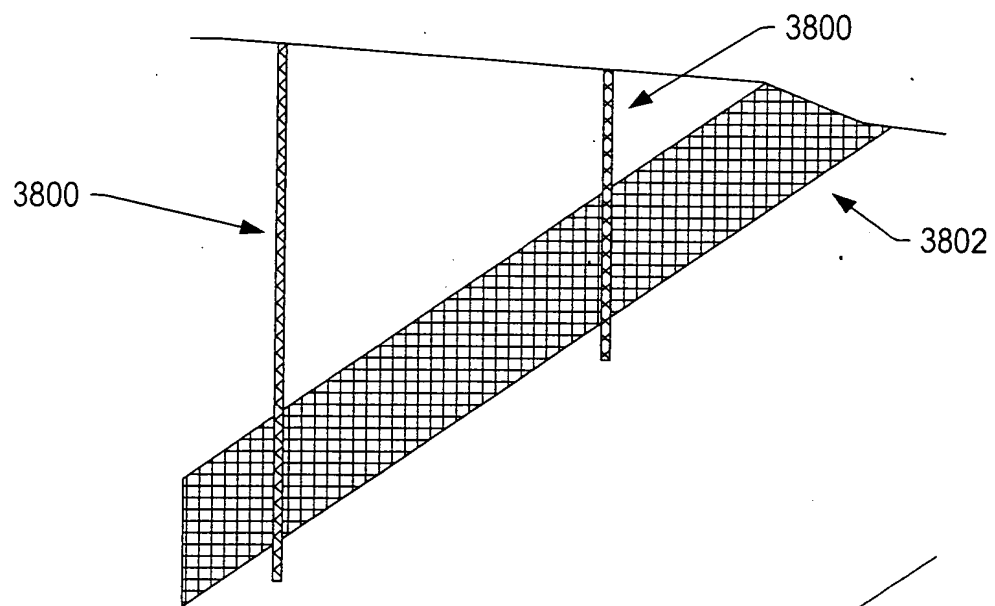


FIG. 98

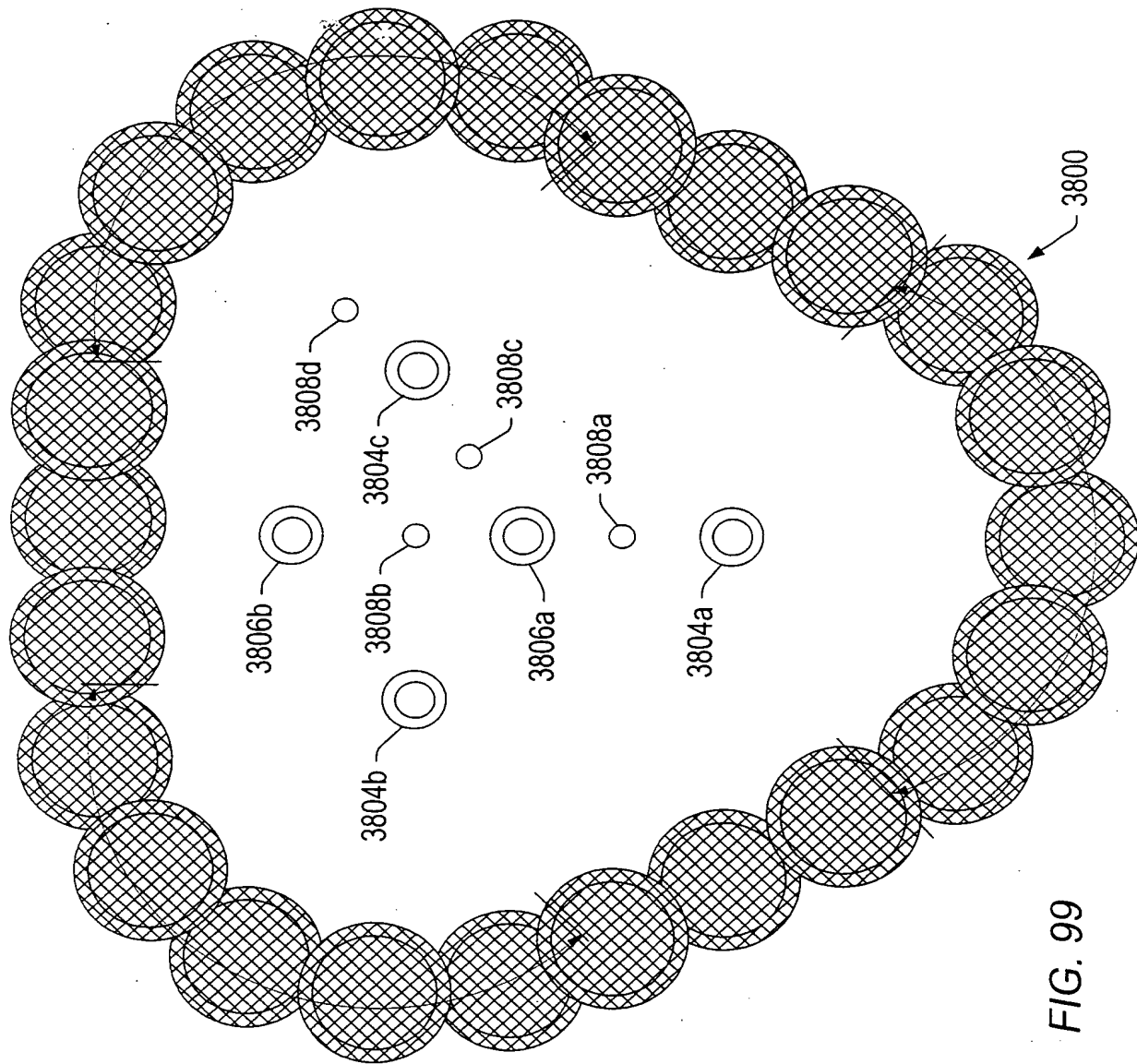


FIG. 99

FIG. 100

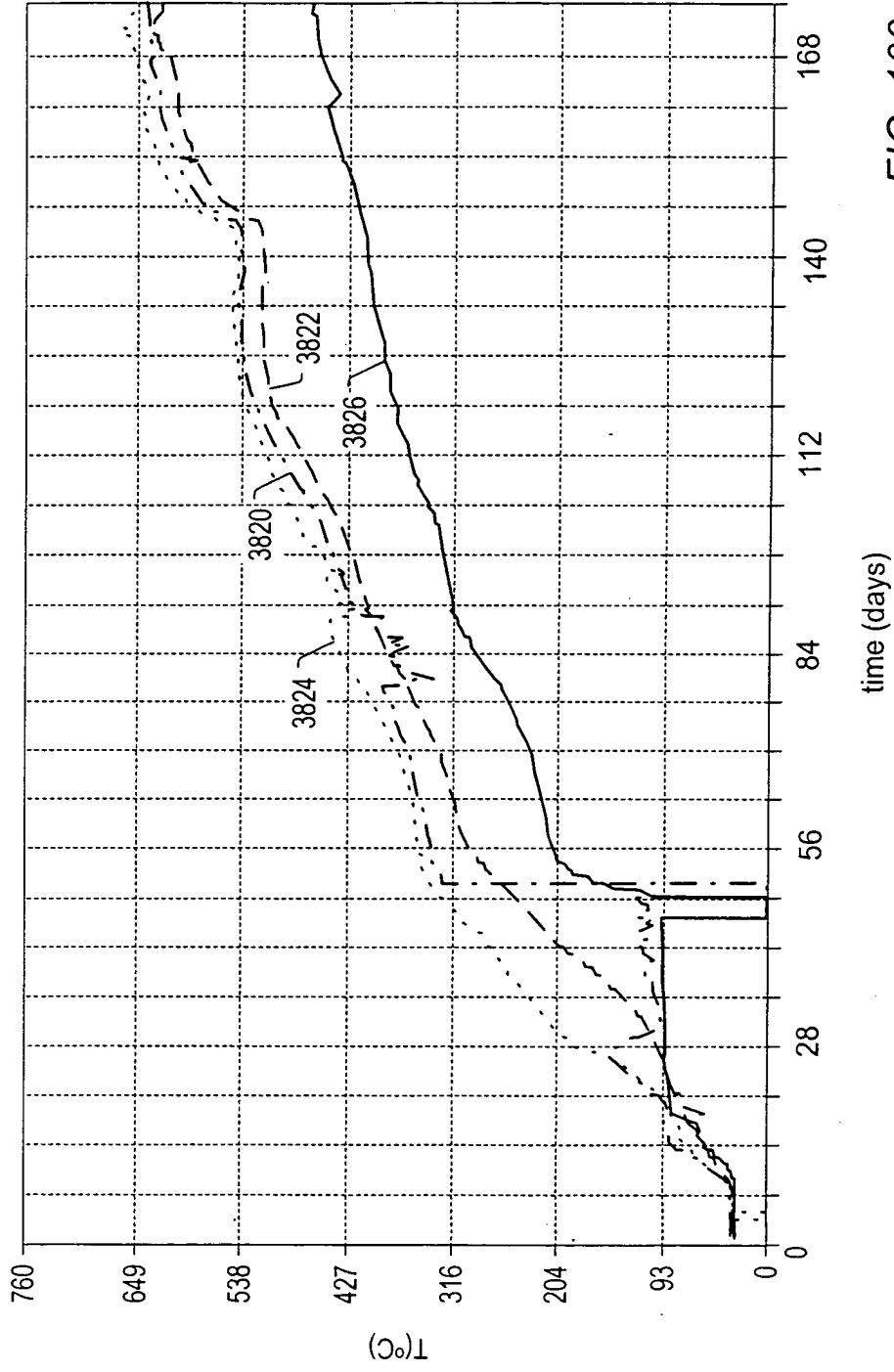


FIG. 100

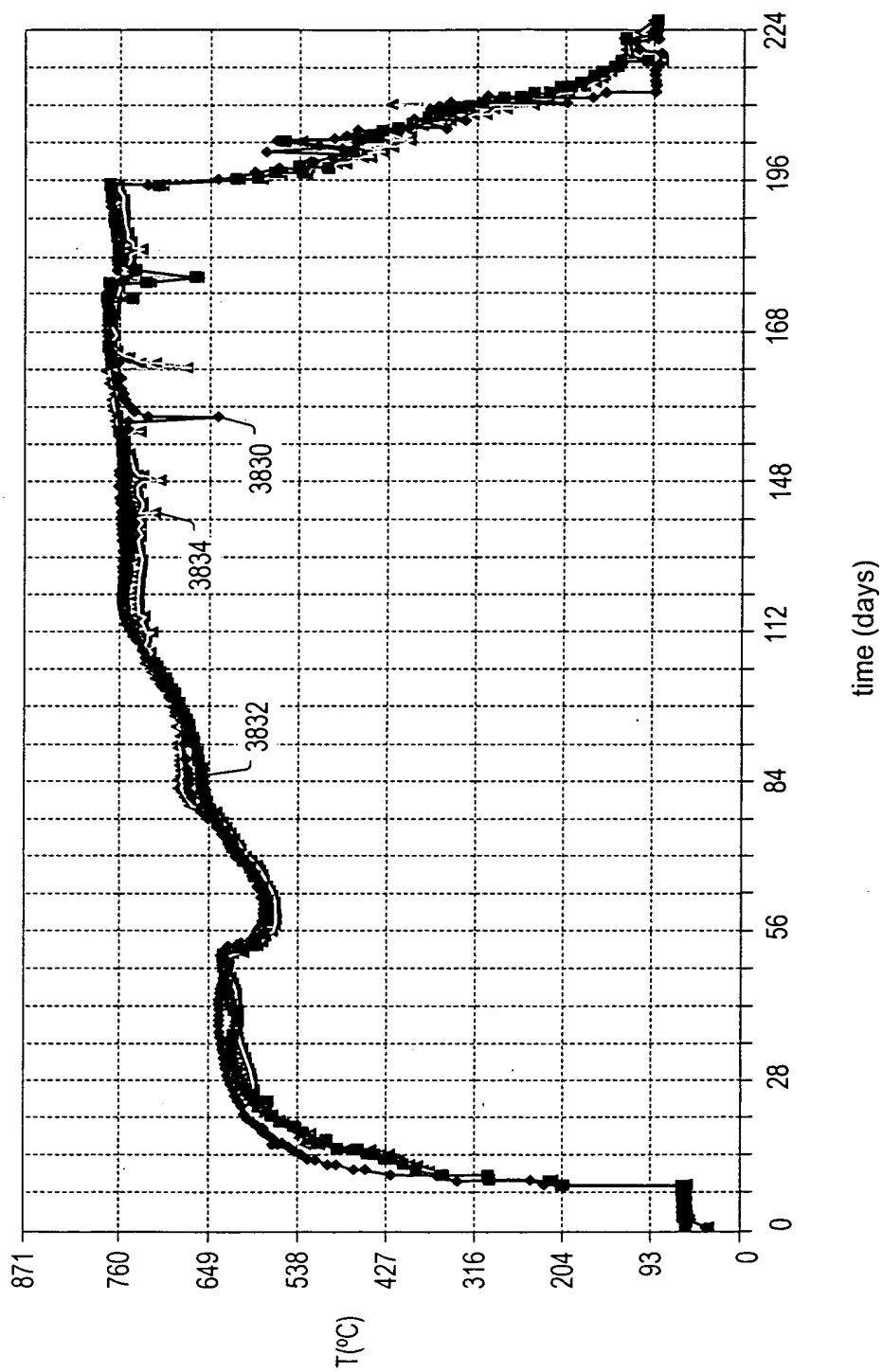


FIG. 101

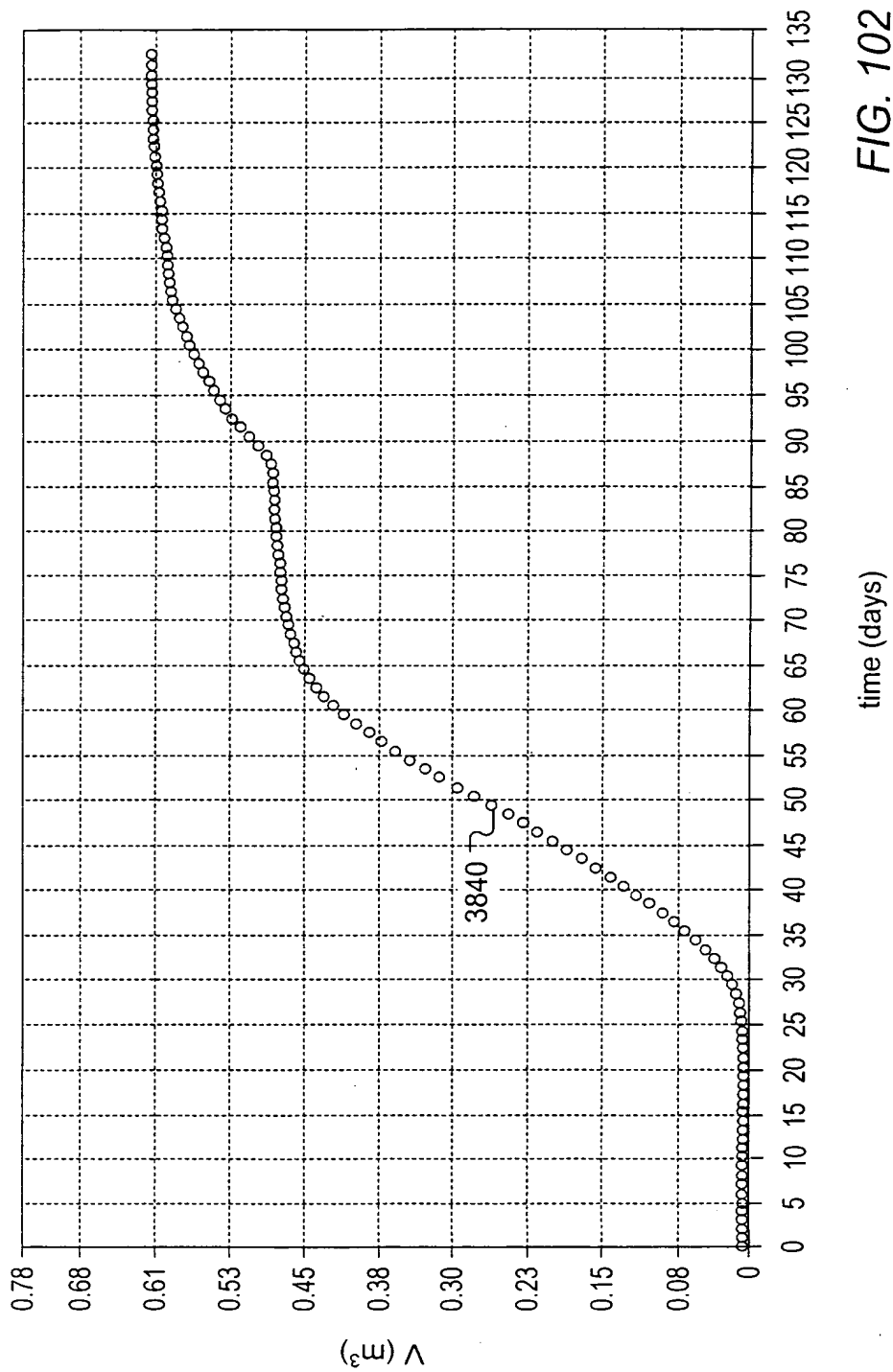


FIG. 102



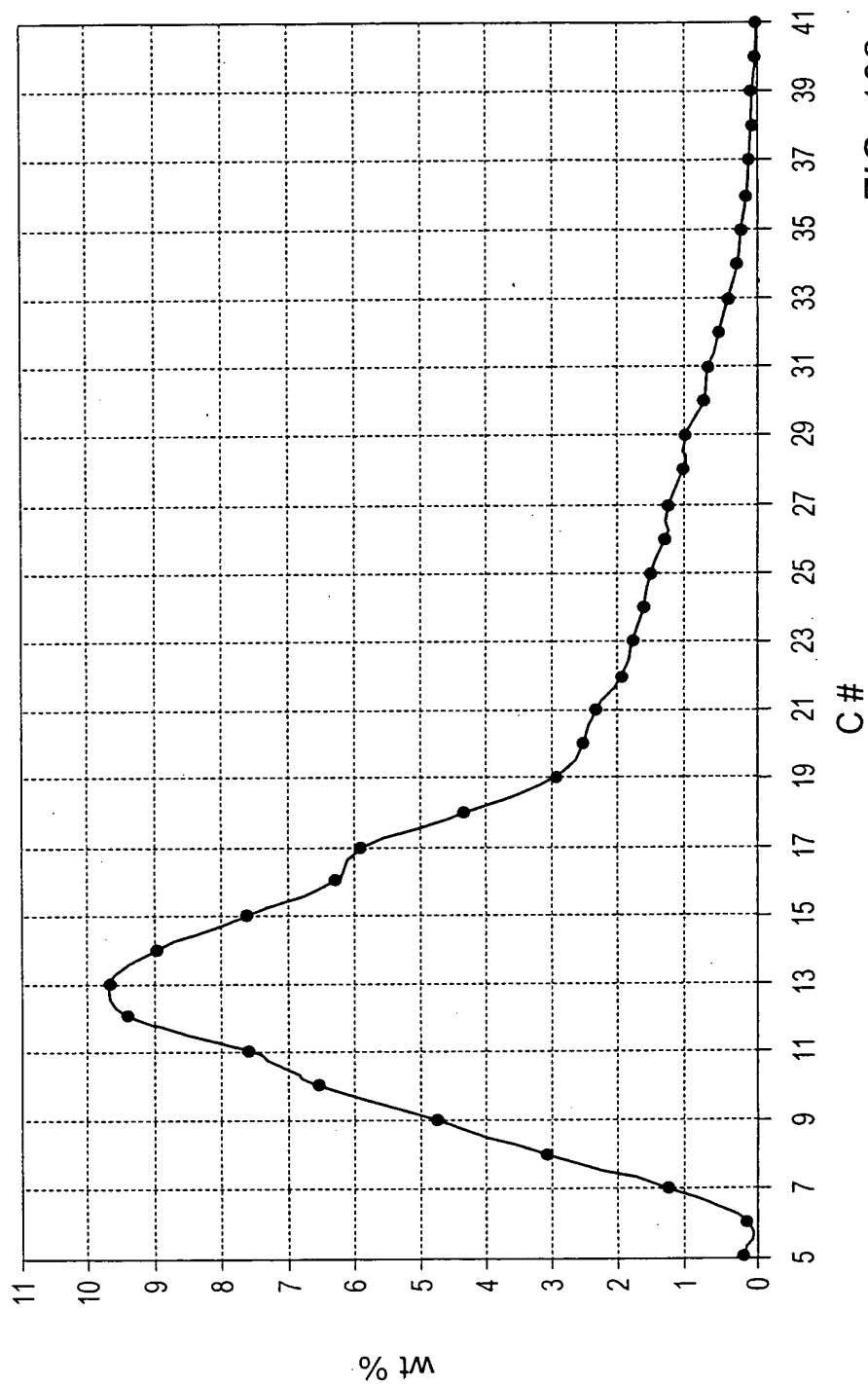


FIG. 103

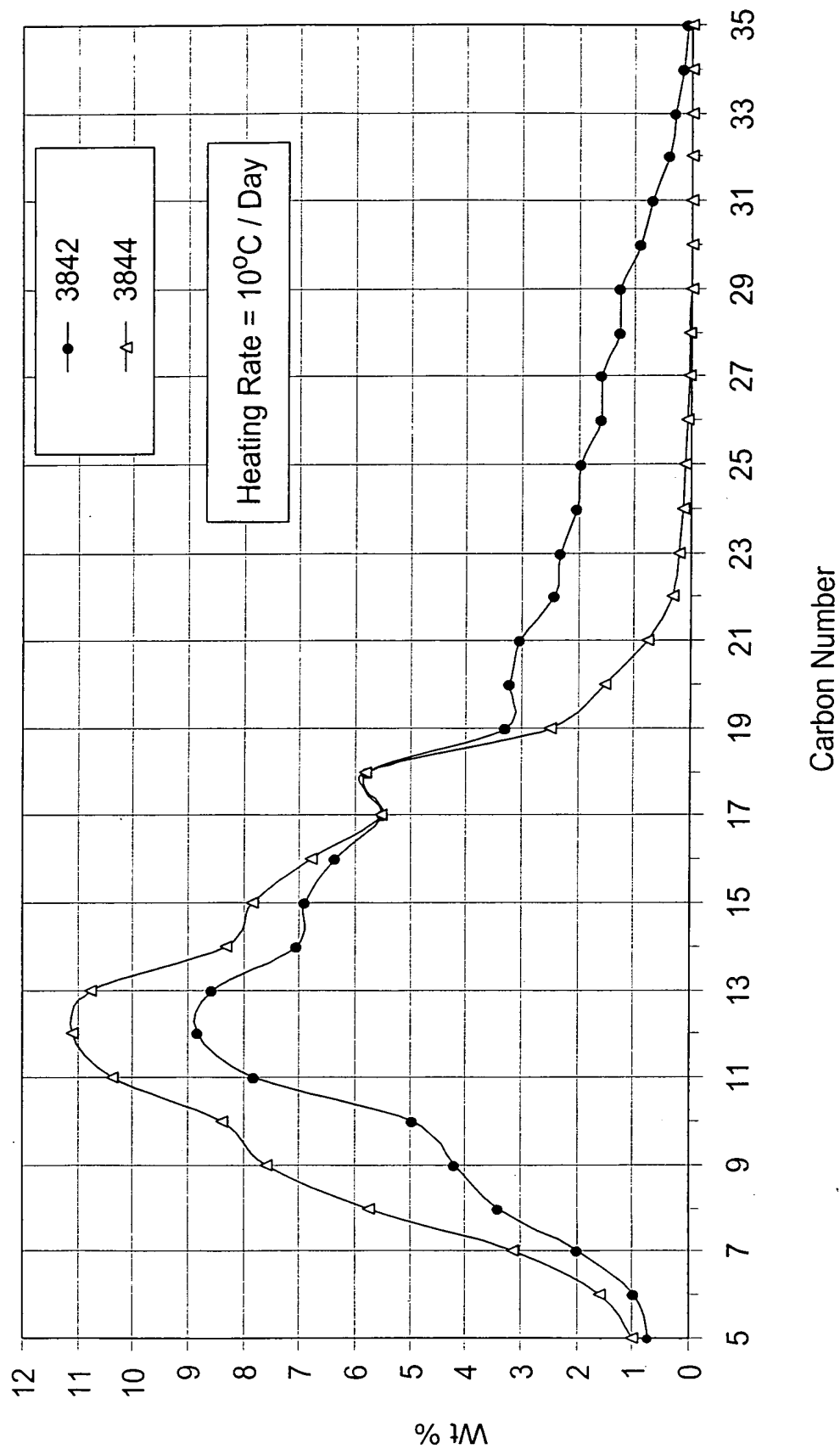


FIG. 104

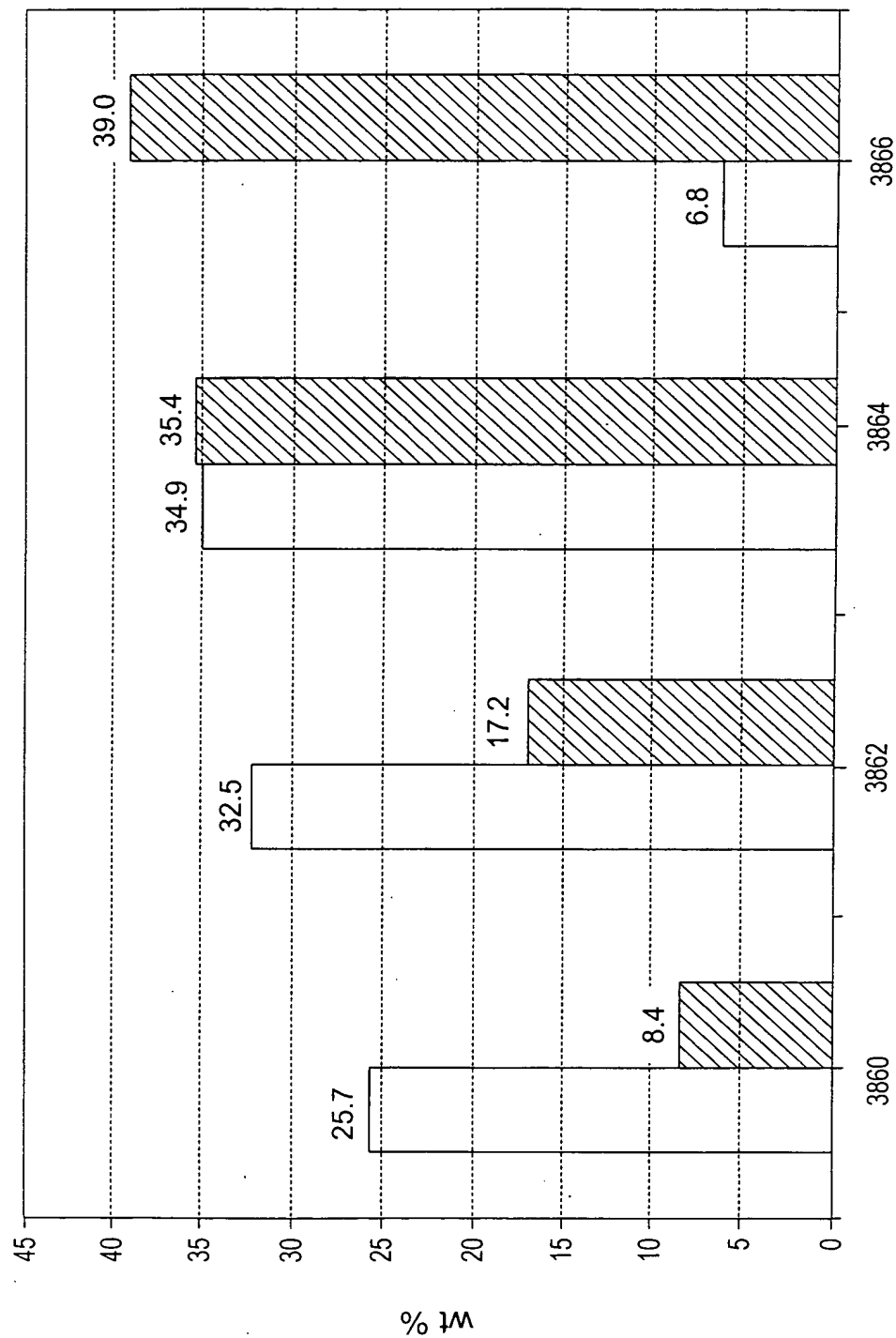


FIG. 105

FIG. 106

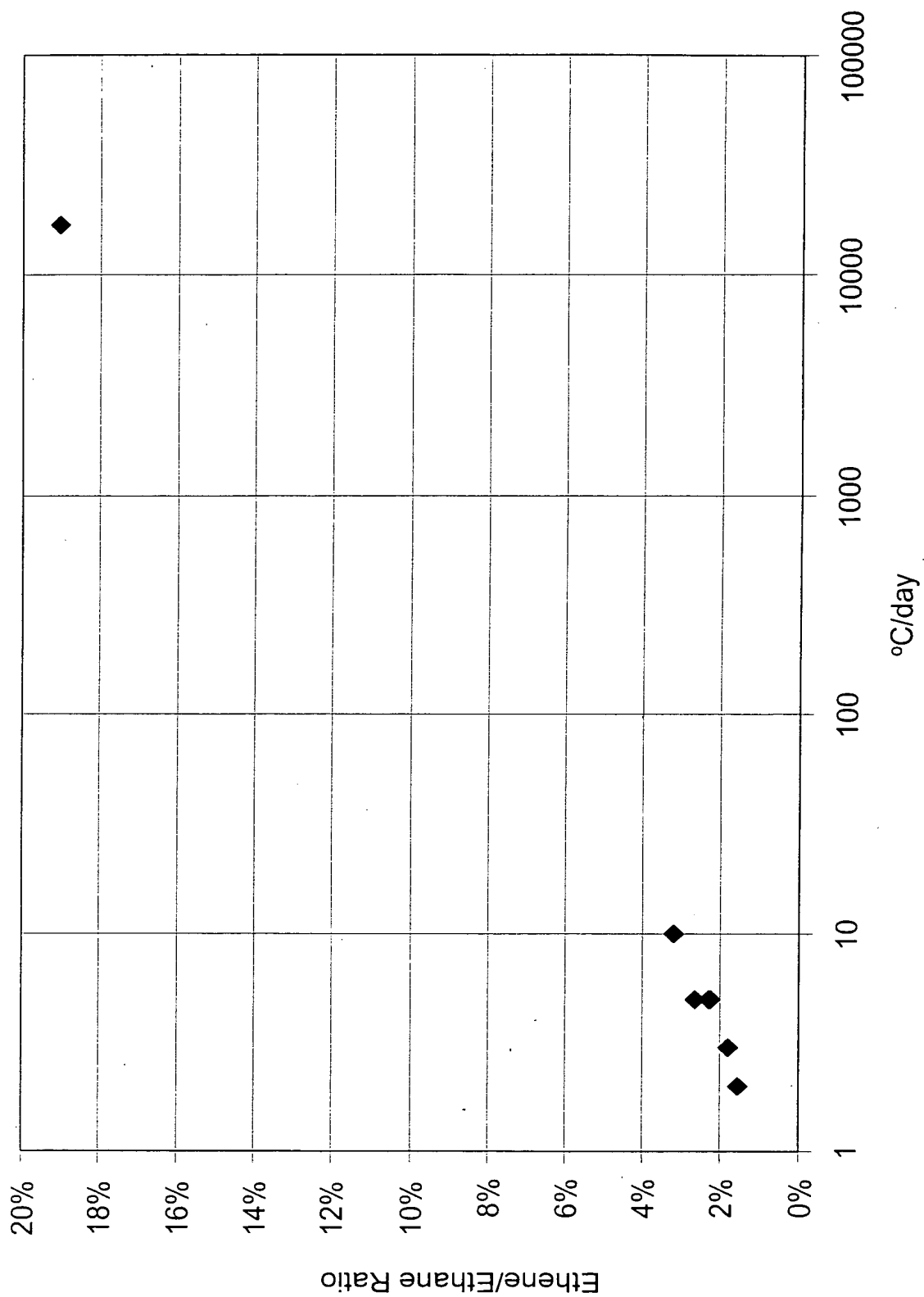


FIG. 106

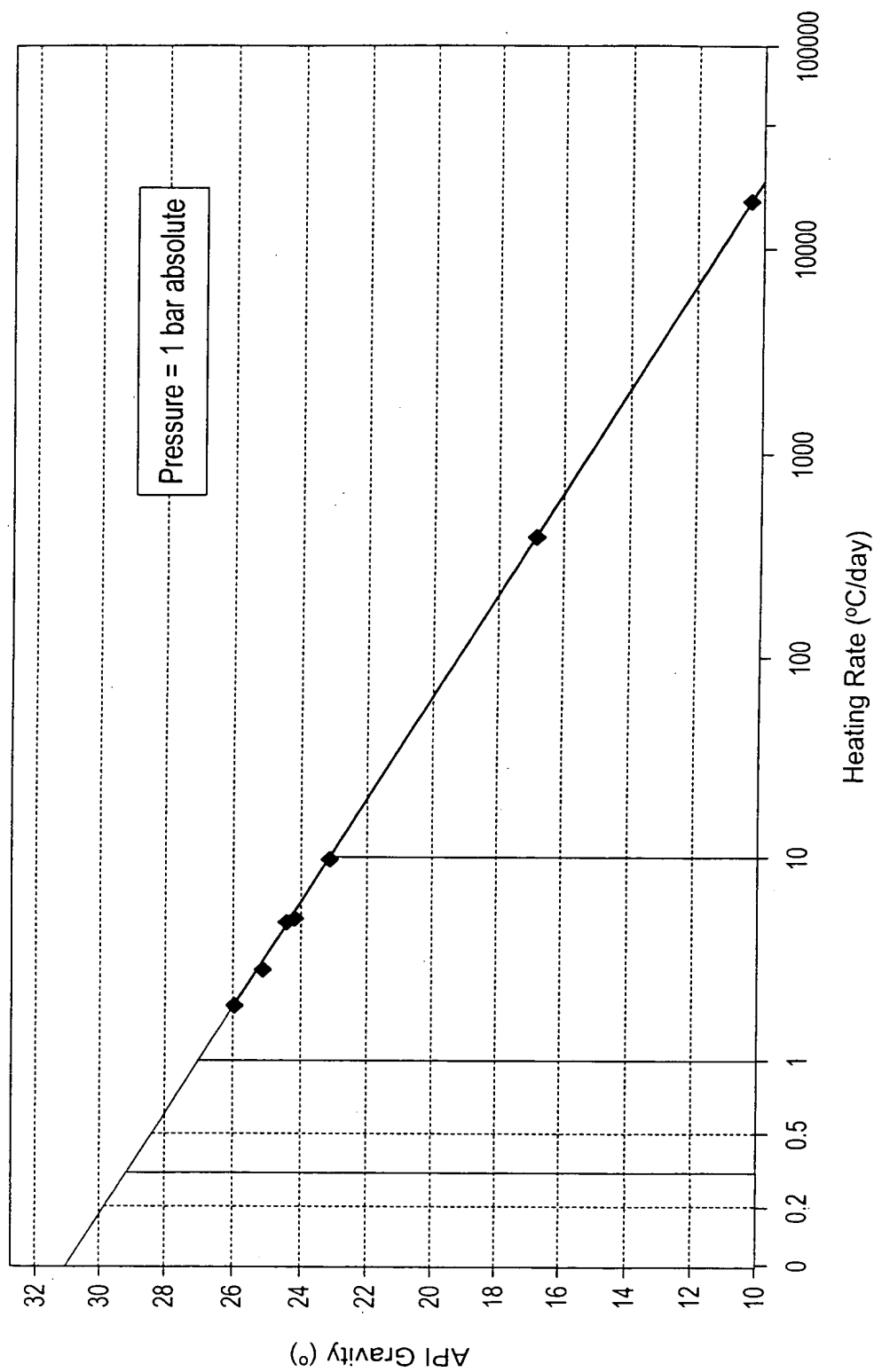


FIG. 107

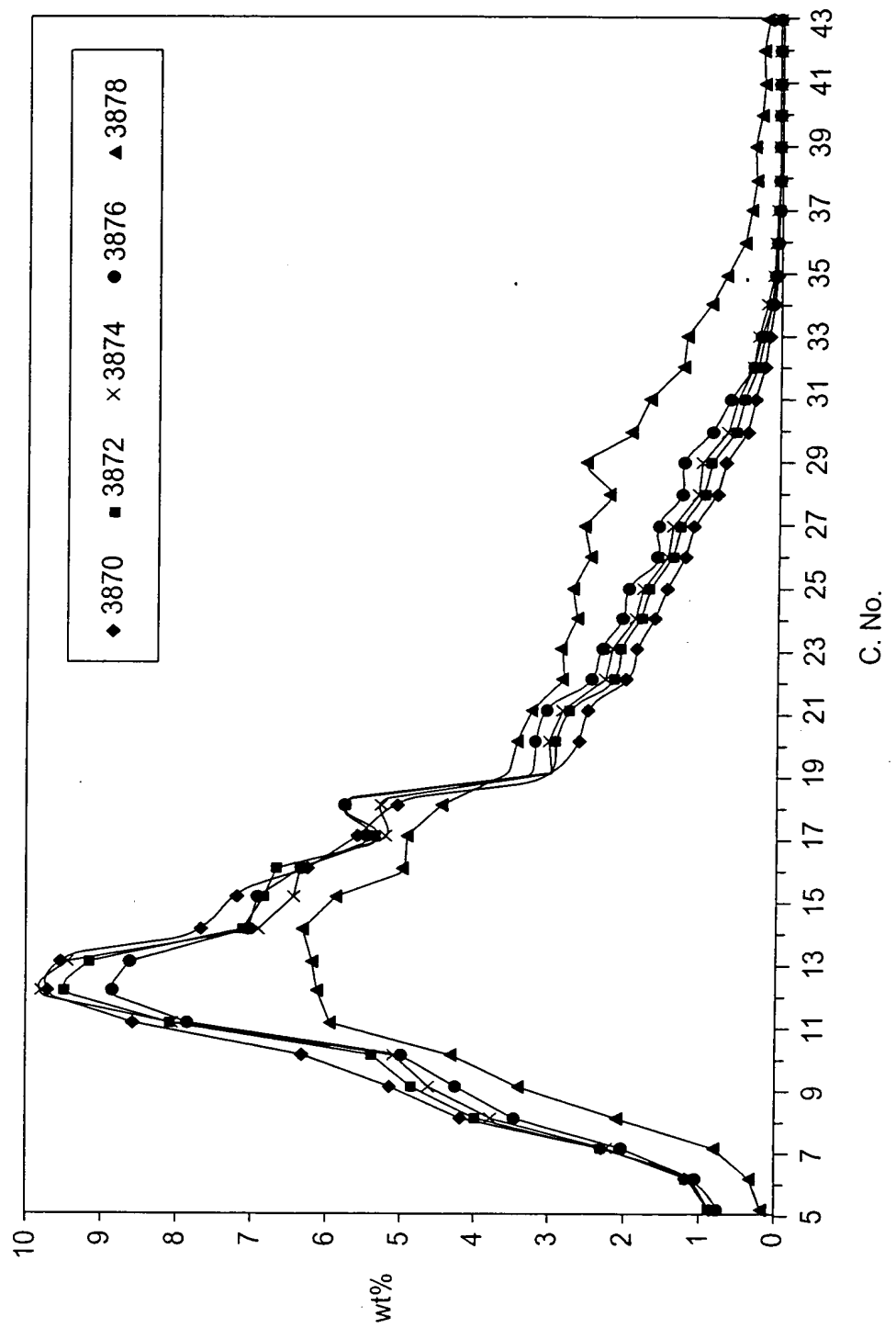


FIG. 108

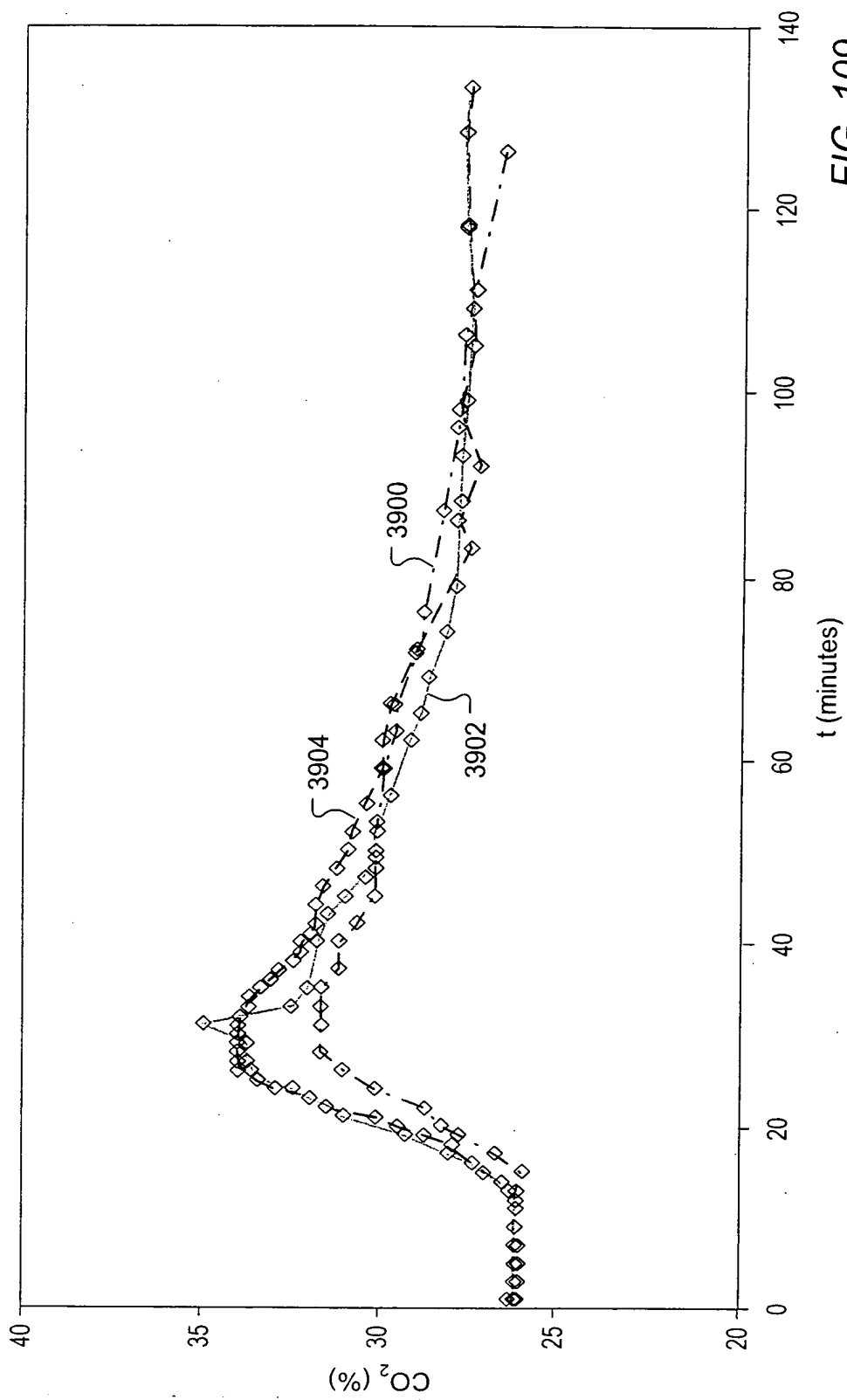


FIG. 109

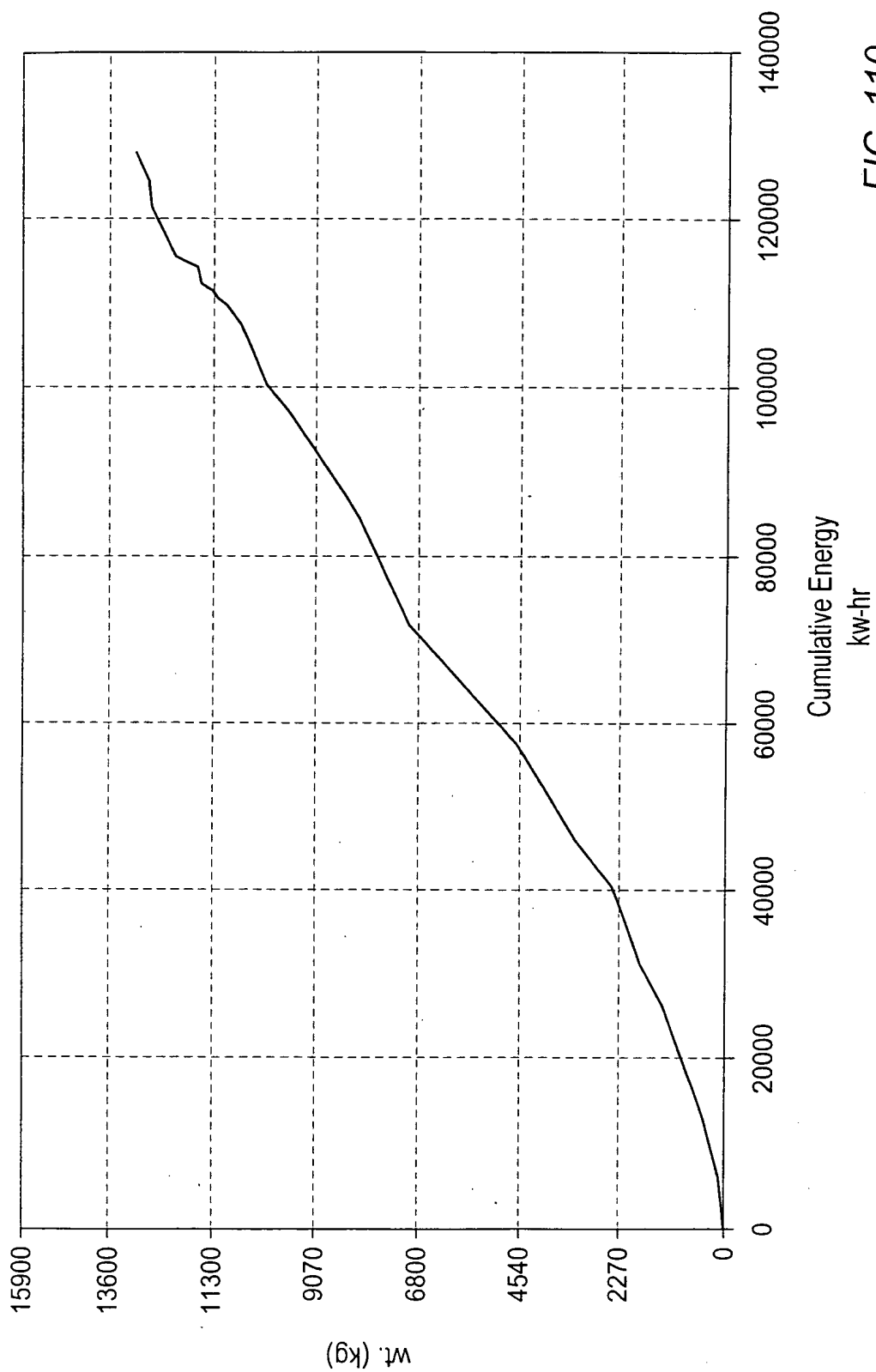


FIG. 110



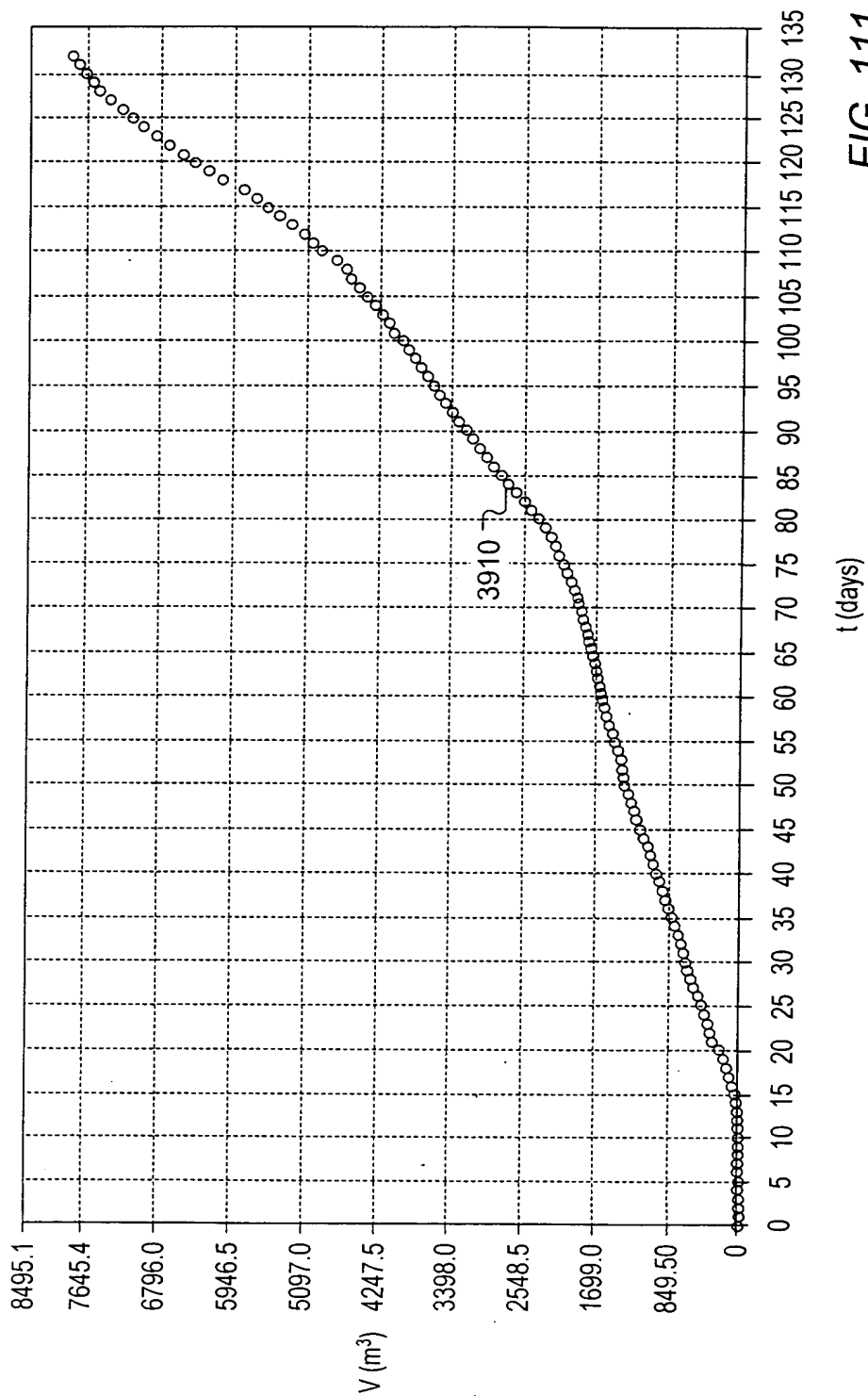


FIG. 111

FIG. 112

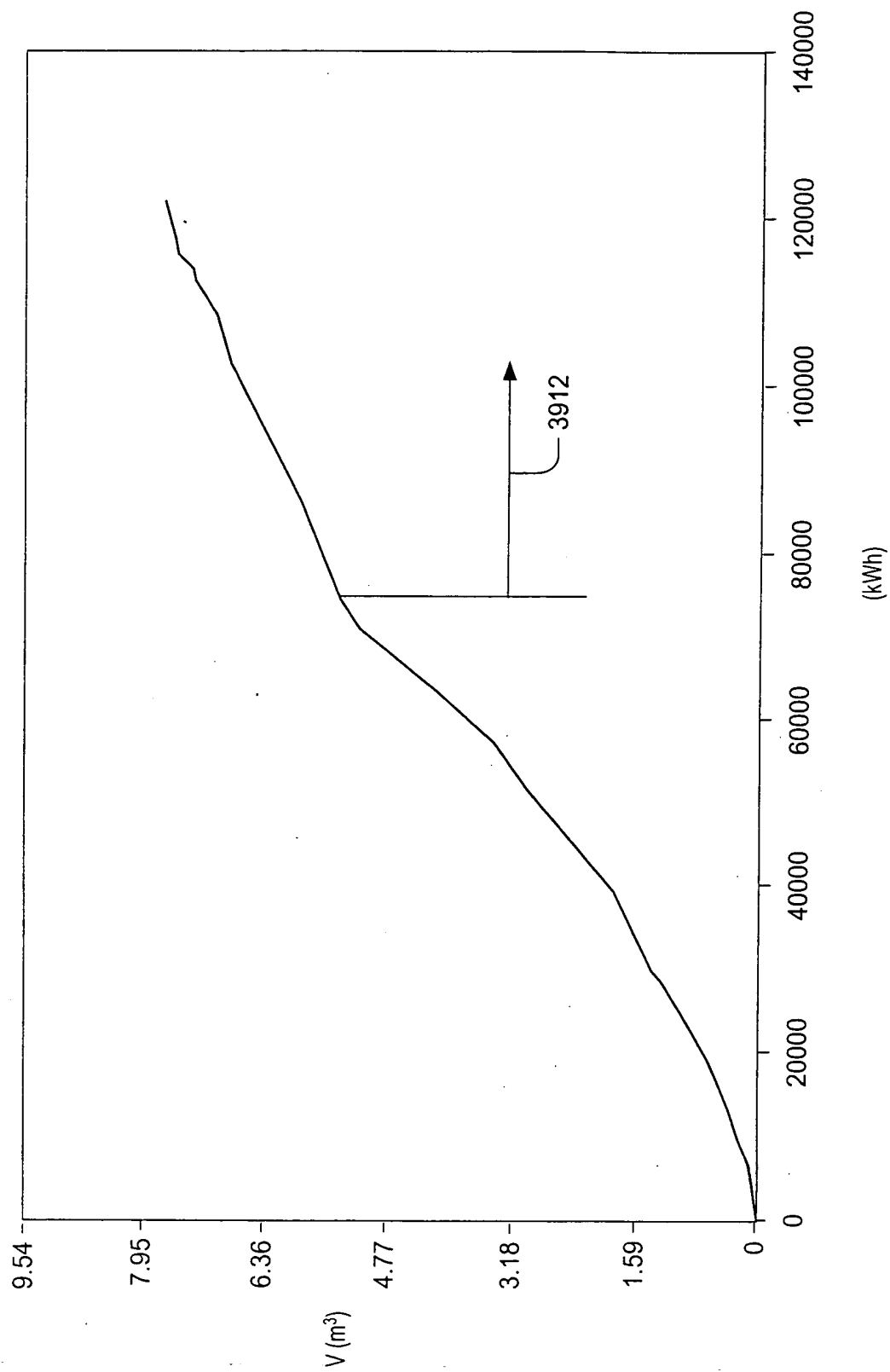


FIG. 112

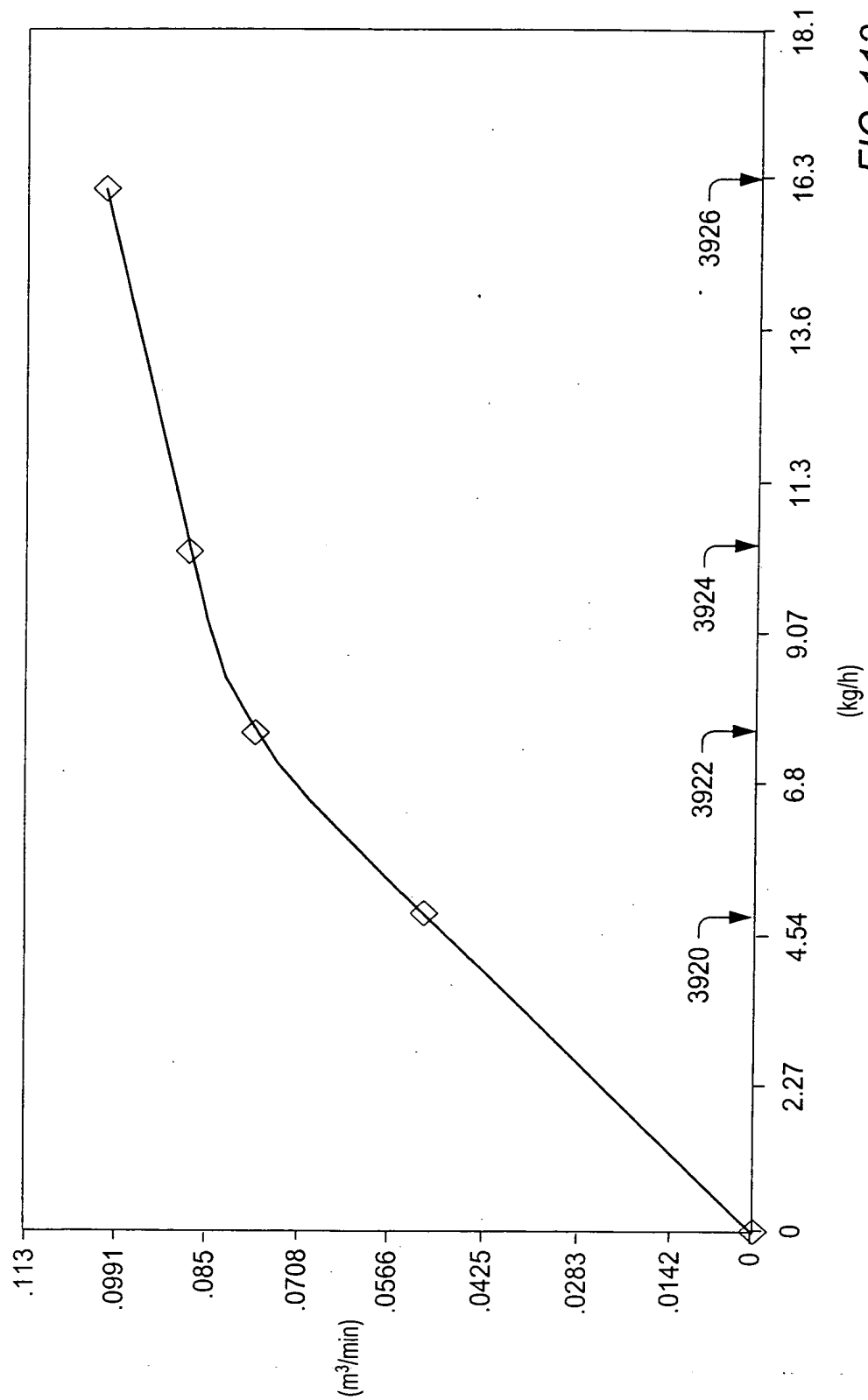


FIG. 113

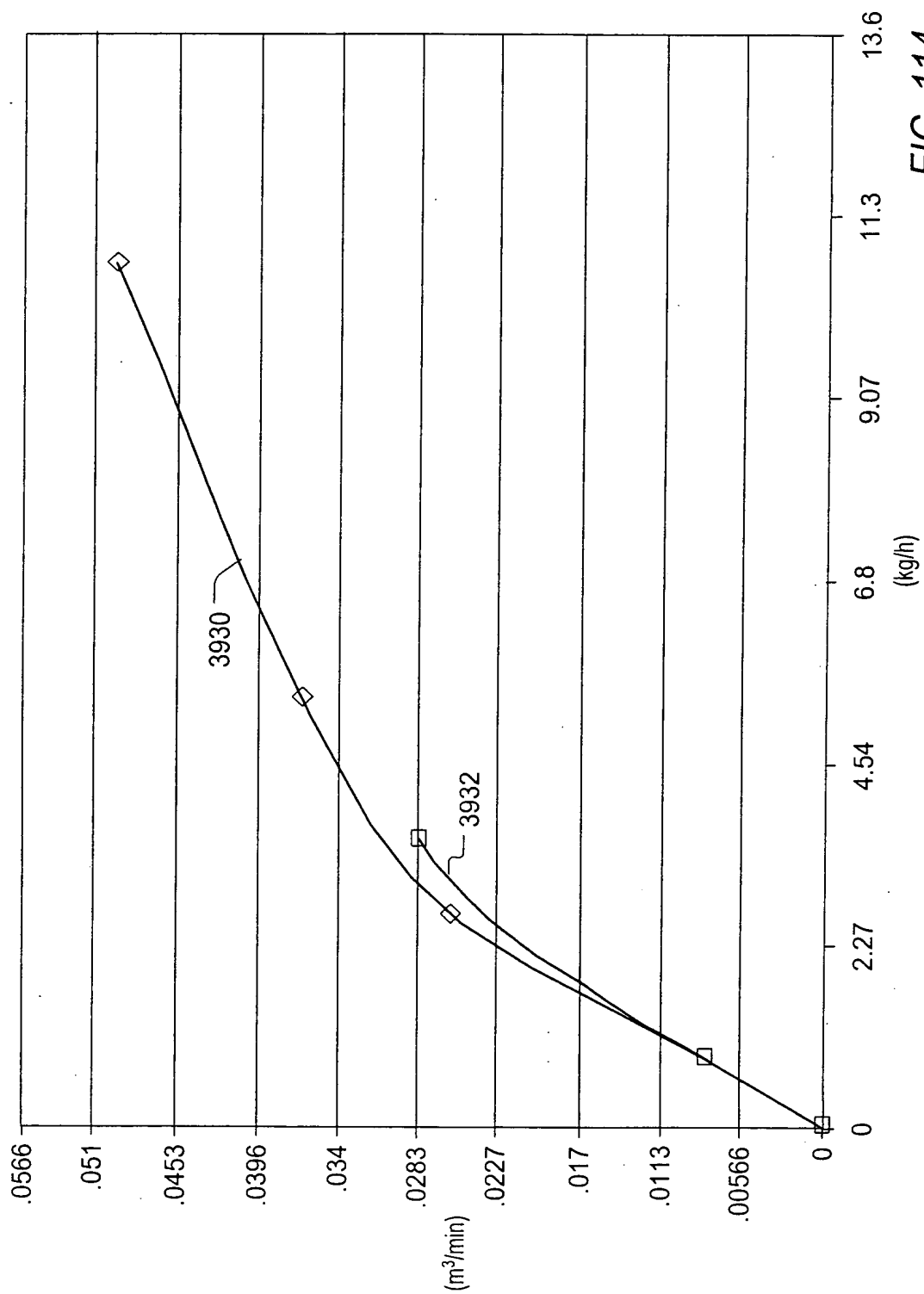
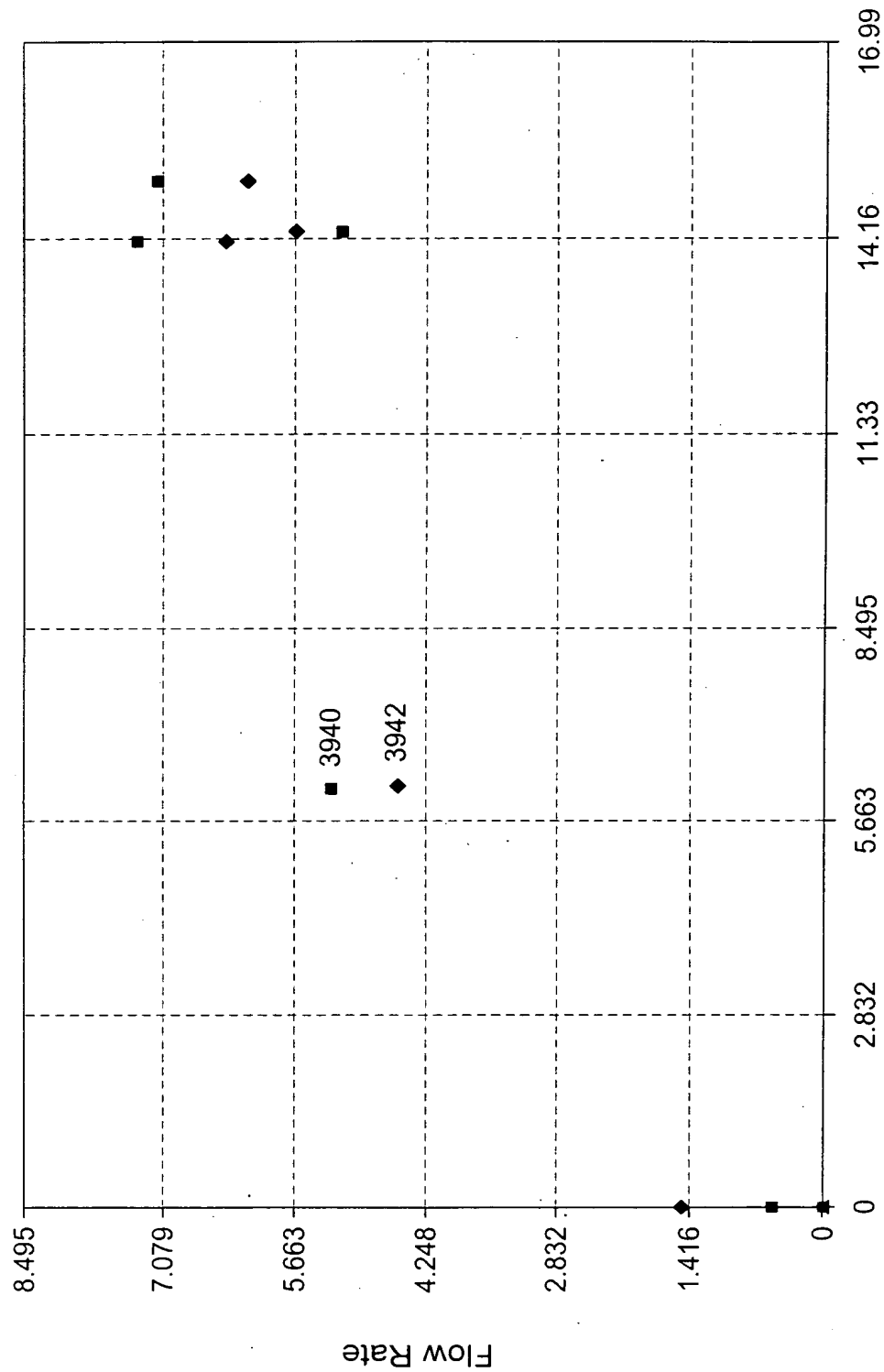


FIG. 114



Methane Injection Rate (m³/hr)

FIG. 115

A scatter plot showing Flow Rate (Y-axis) versus Methane Injection Rate (X-axis) for two series, 3940 and 3942. The Y-axis ranges from 0 to 8.495 with major ticks every 1.416. The X-axis ranges from 0 to 16.99 with major ticks every 2.832. Series 3940 is represented by square markers and Series 3942 by diamond markers. Both series show a general upward trend, with Flow Rate increasing as Methane Injection Rate increases. Series 3940 generally has higher Flow Rates than Series 3942 for the same Methane Injection Rate.

Methane Injection Rate (m <sup>3</sup> /hr)	Flow Rate (Series 3940)	Flow Rate (Series 3942)
0	0	0
~0.5	~0.5	~0.5
~5.7	~5.7	~4.5
~11.3	~7.1	~6.3
~14.3	~7.1	~6.3
~14.8	~7.5	~6.7
~15.3	~7.1	~6.3

Methane Injection Rate ( $\text{m}^3/\text{hr}$ )

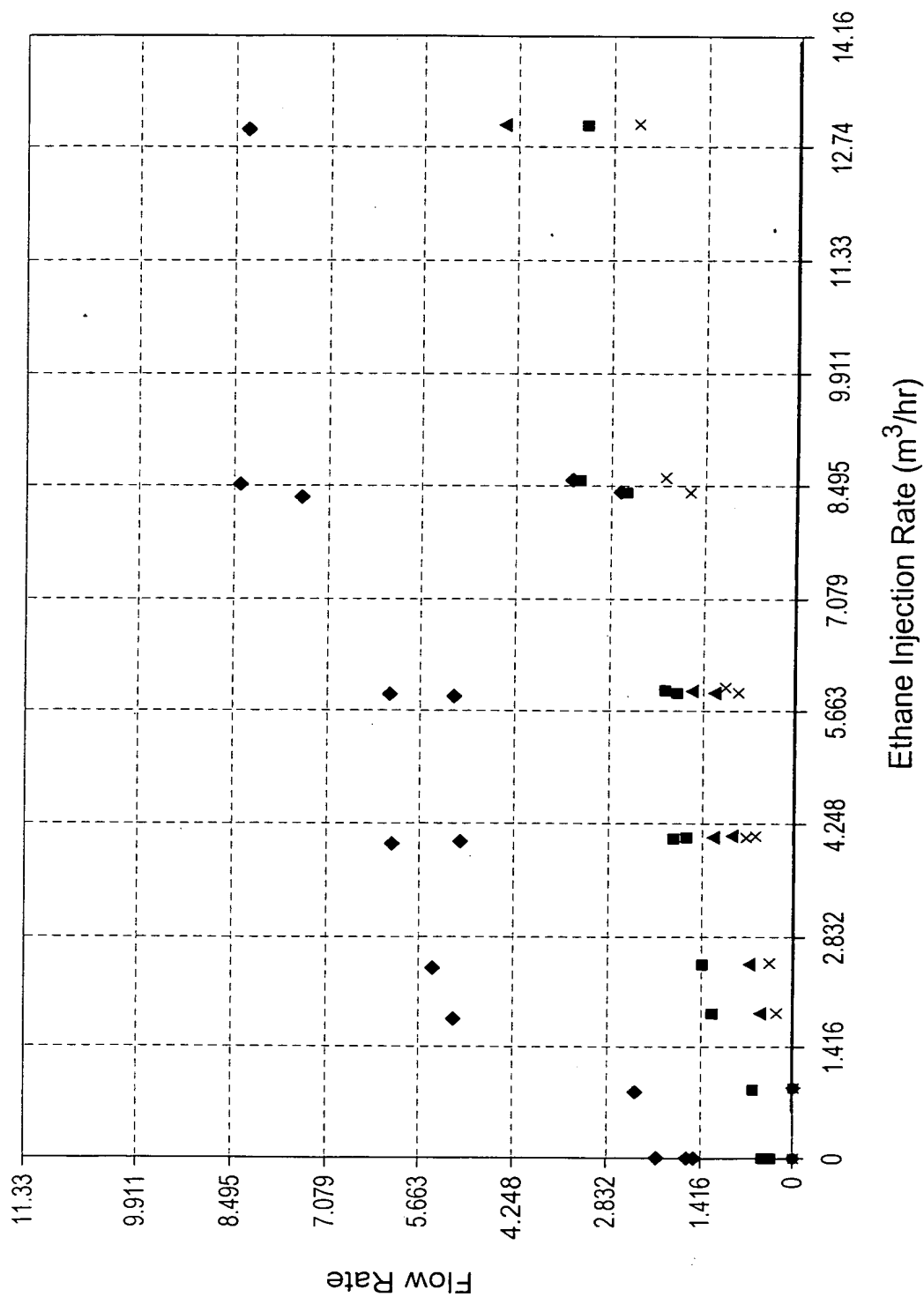
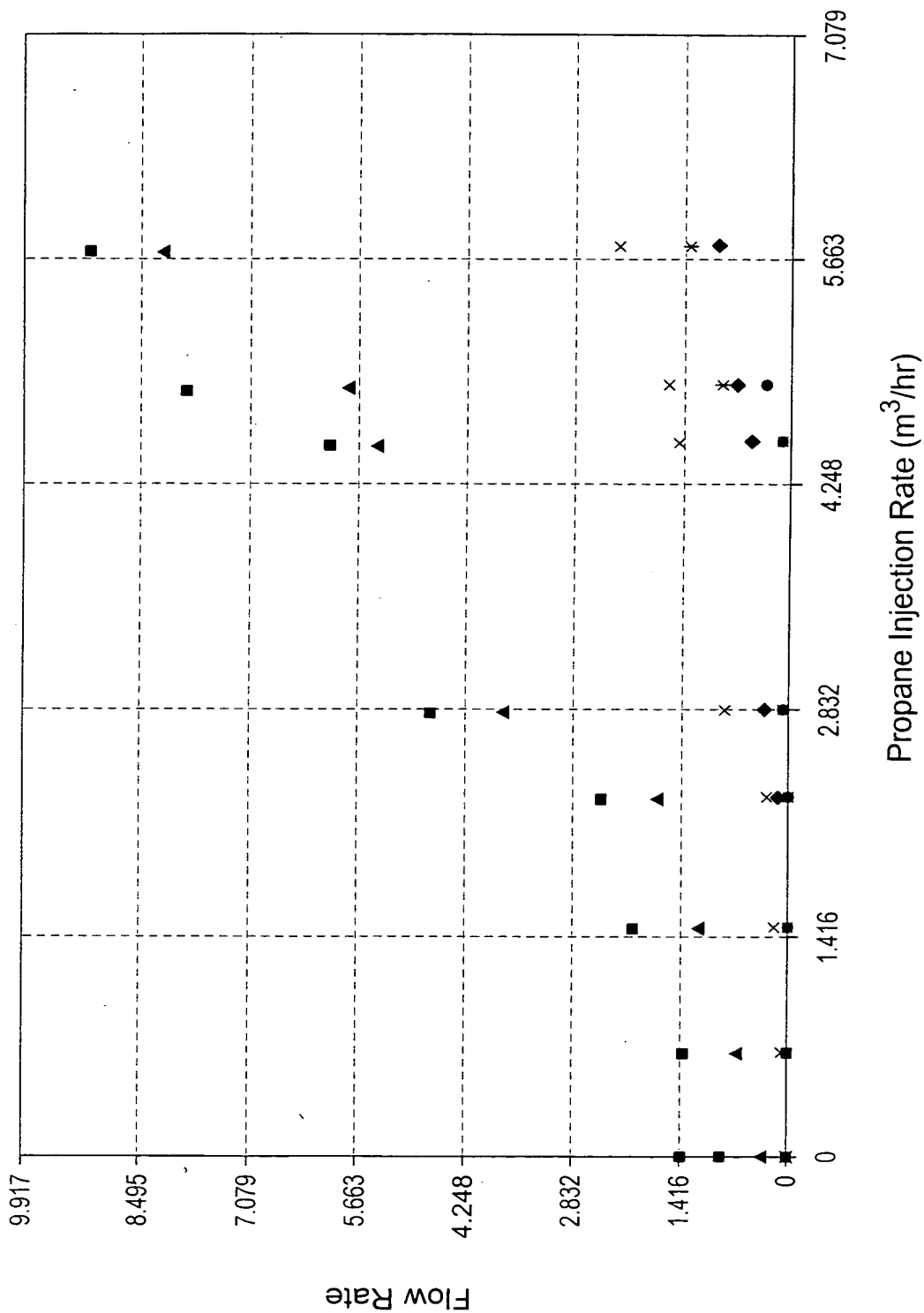


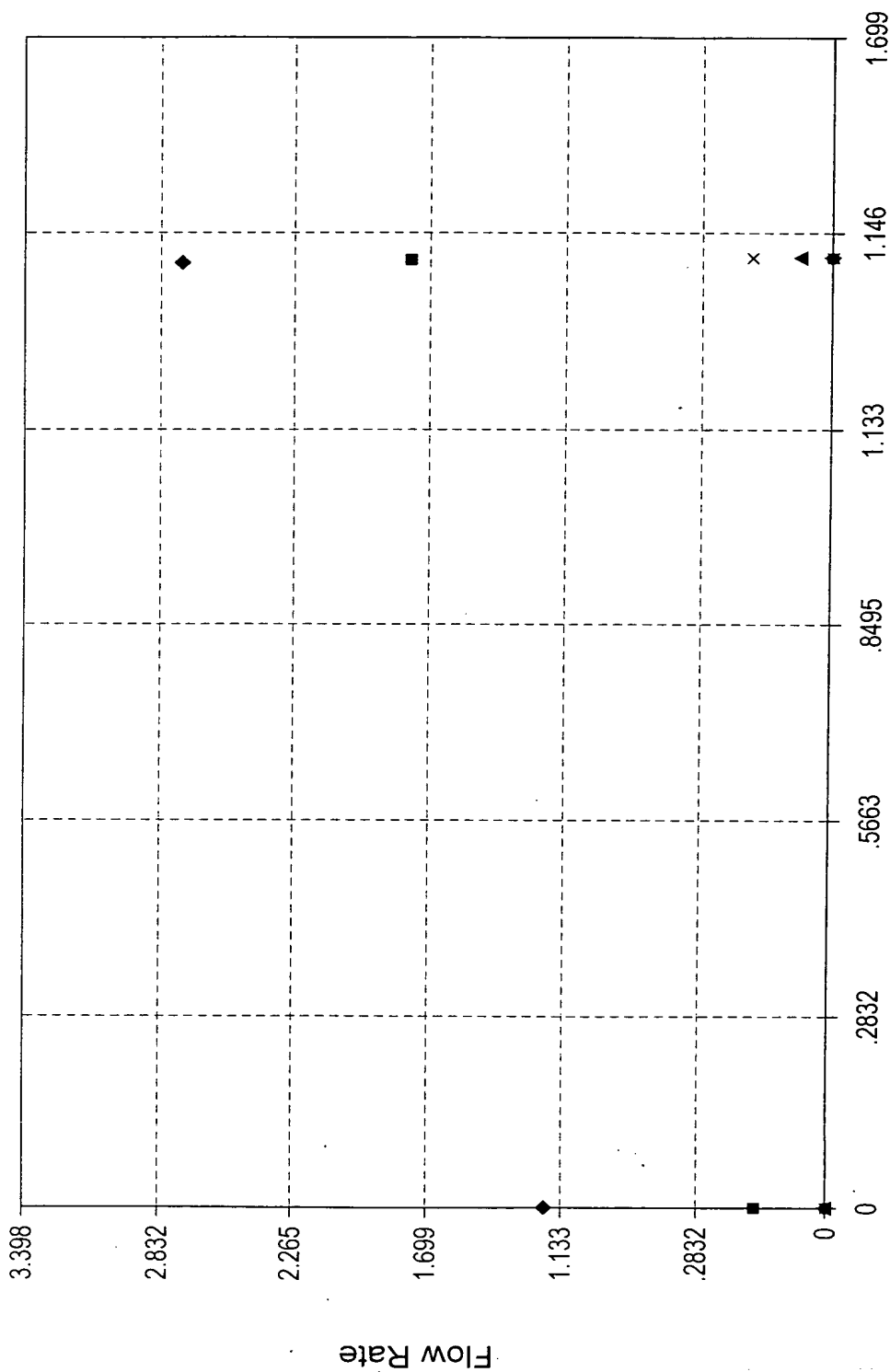
FIG. 116



■ 3960    ▲ 3962    ◆ 3964    × 3966    \* 3968    ● 3969

FIG. 117





Butane Injection Rate (m³/hr)

■ 3970    ▲ 3972    ◆ 3974    × 3976    \* 3978    ● 3979

FIG. 118

11-11-11 11:11:11 11-11-11 11:11:11

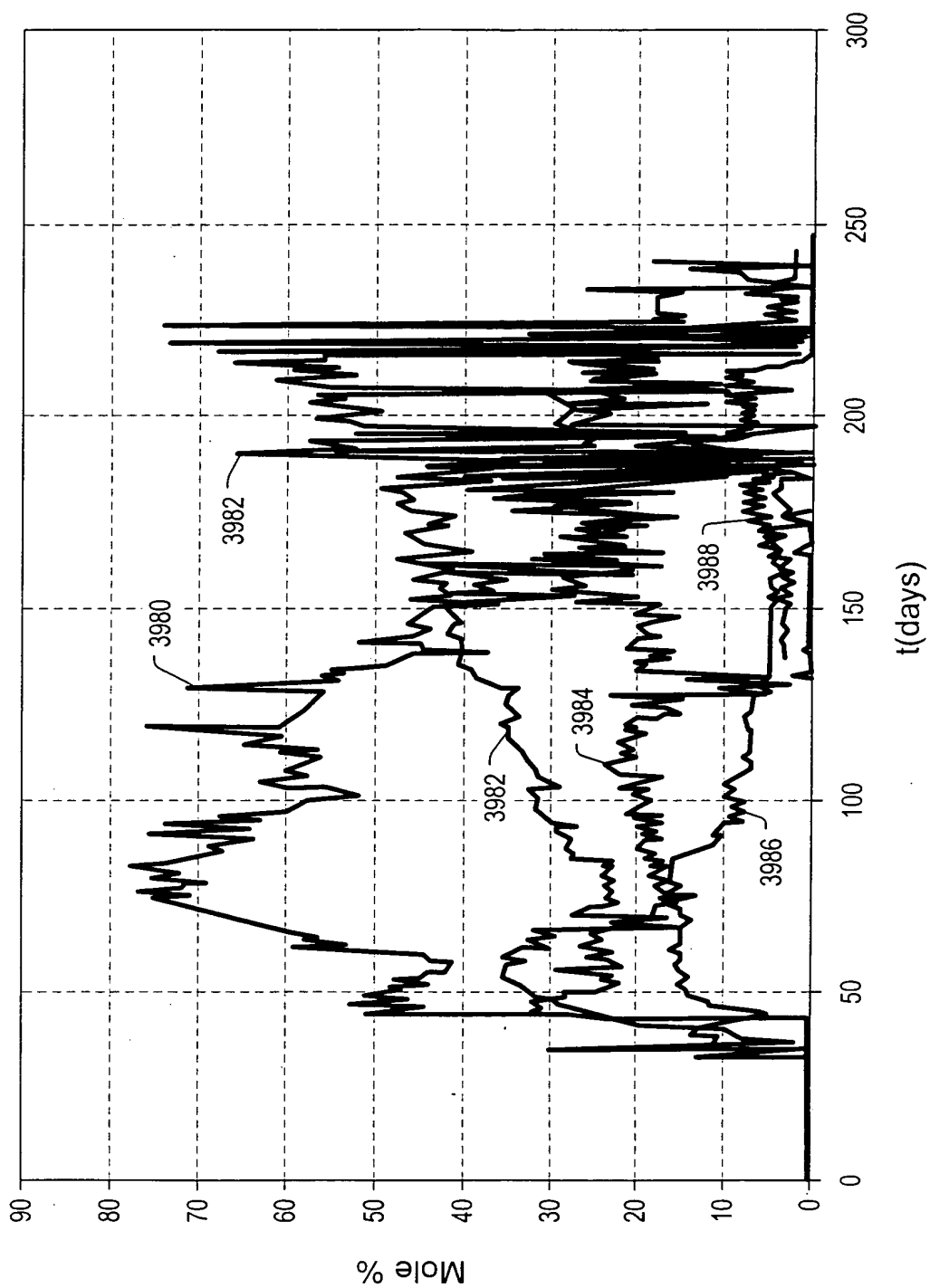


FIG. 119

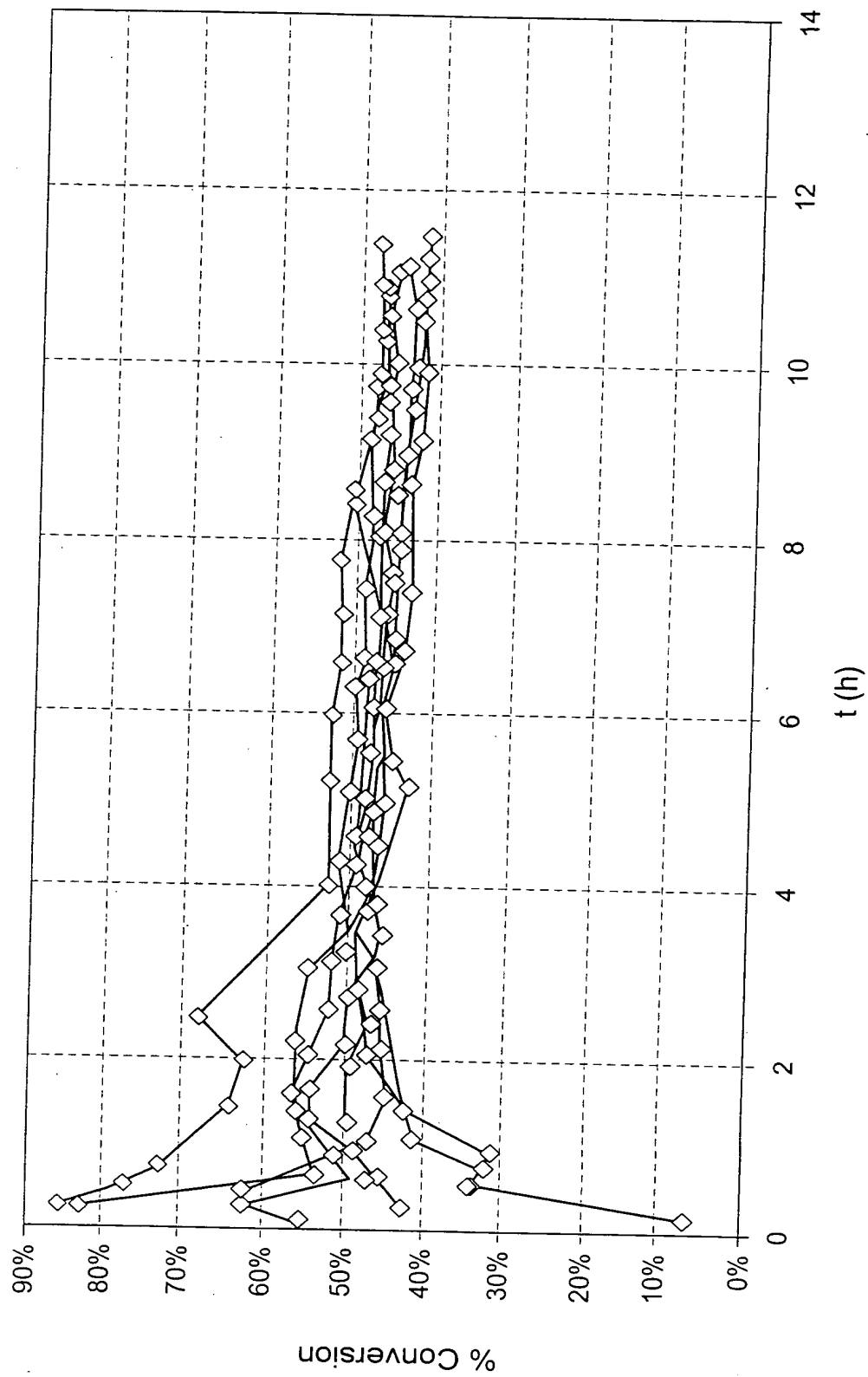


FIG. 120

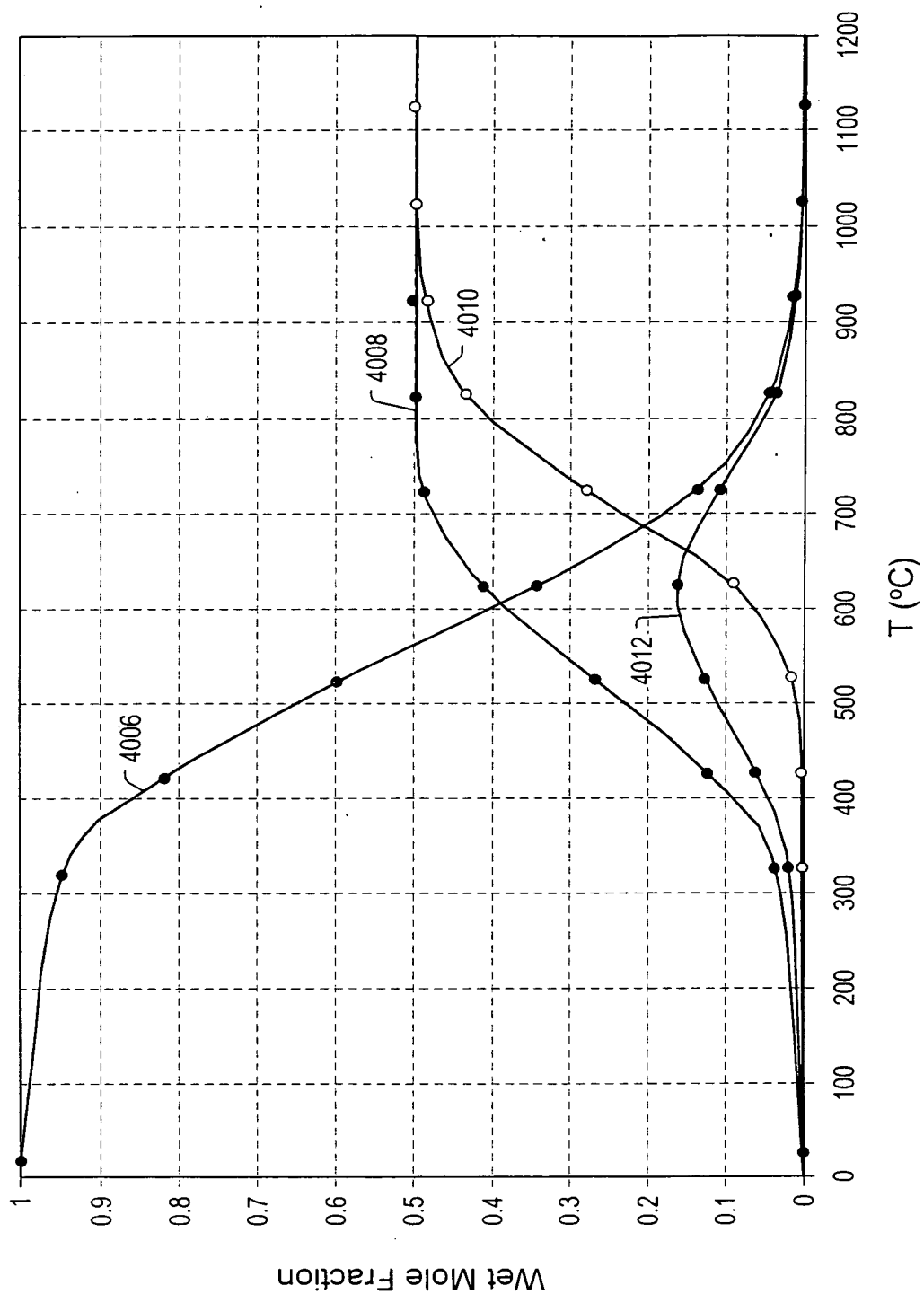


FIG. 122

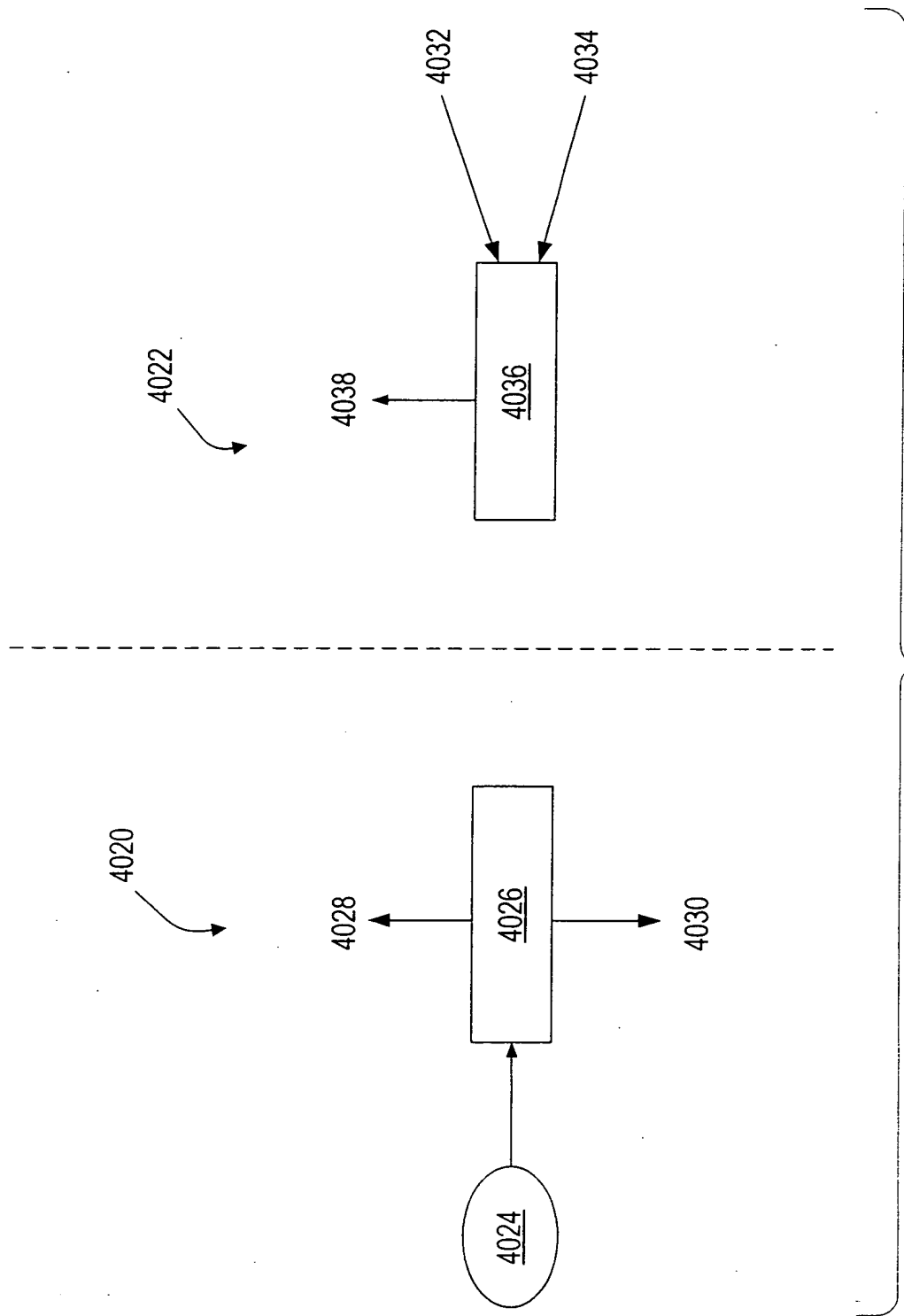


FIG. 123

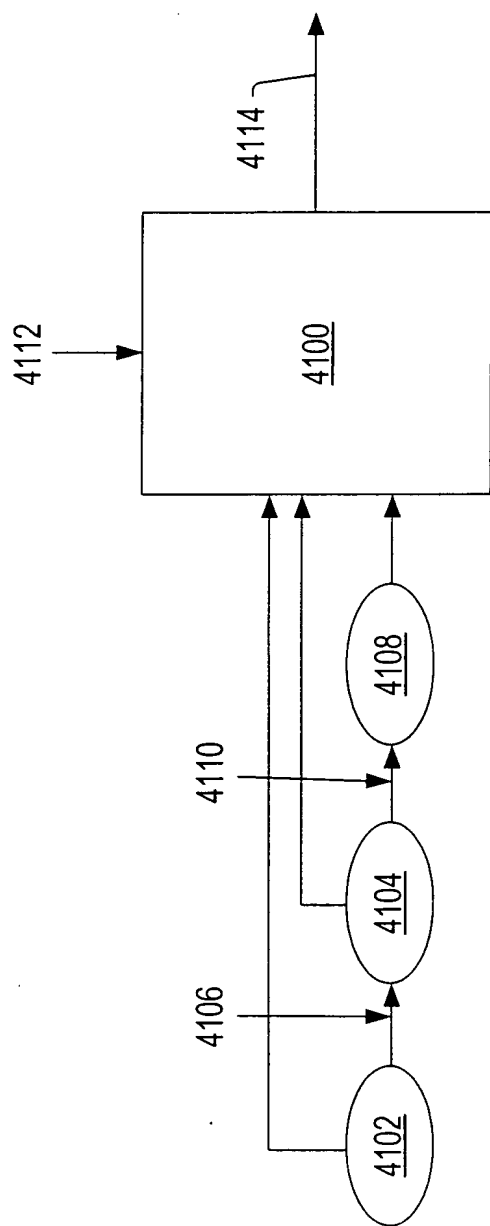


FIG. 124

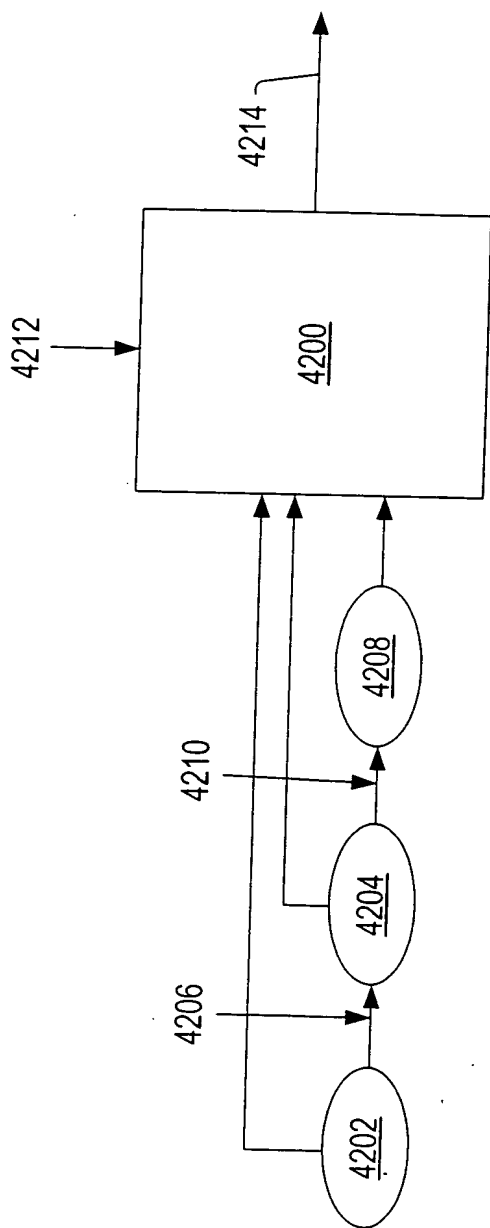


FIG. 125

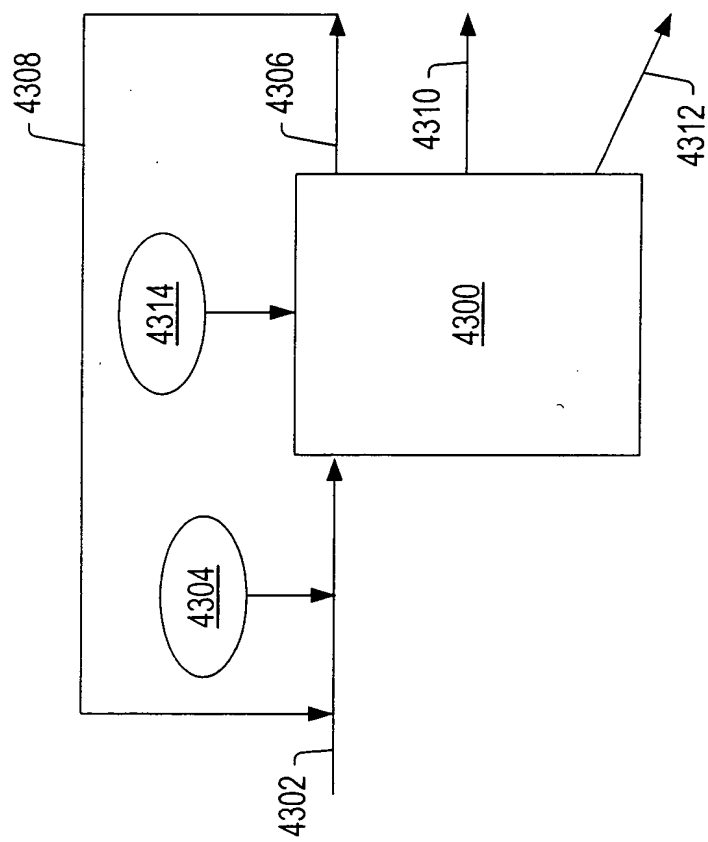


FIG. 126



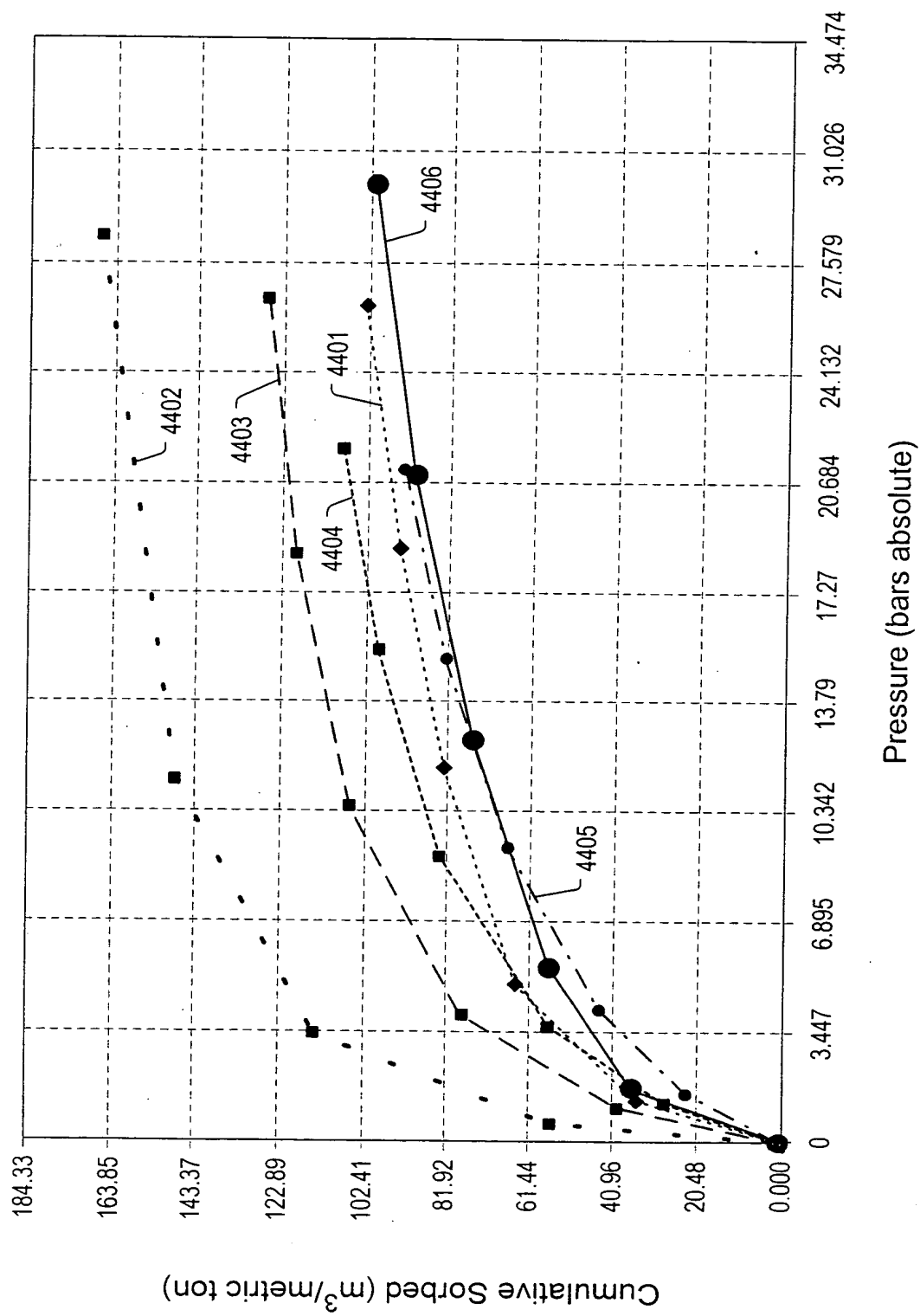


FIG. 127

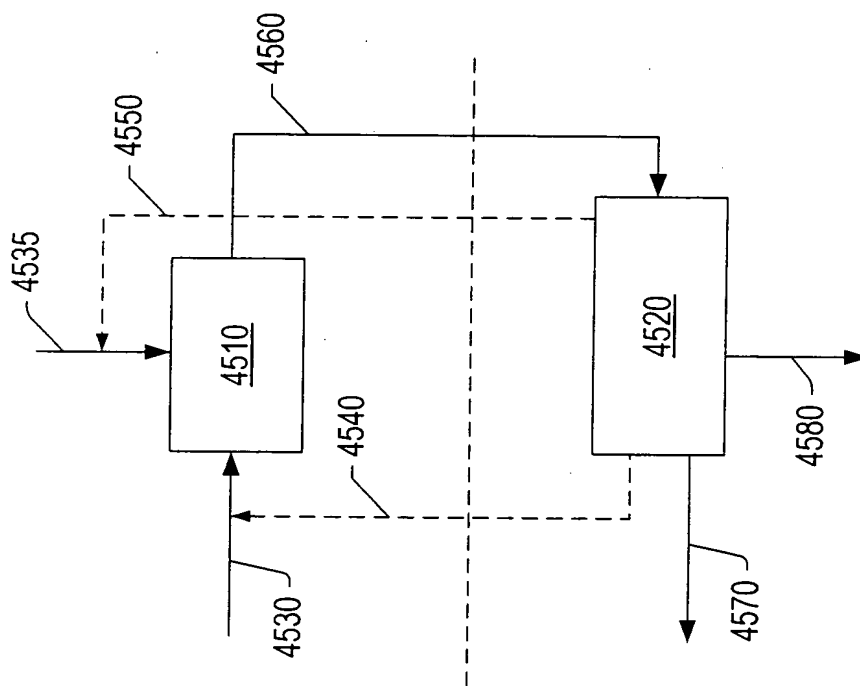


FIG. 128

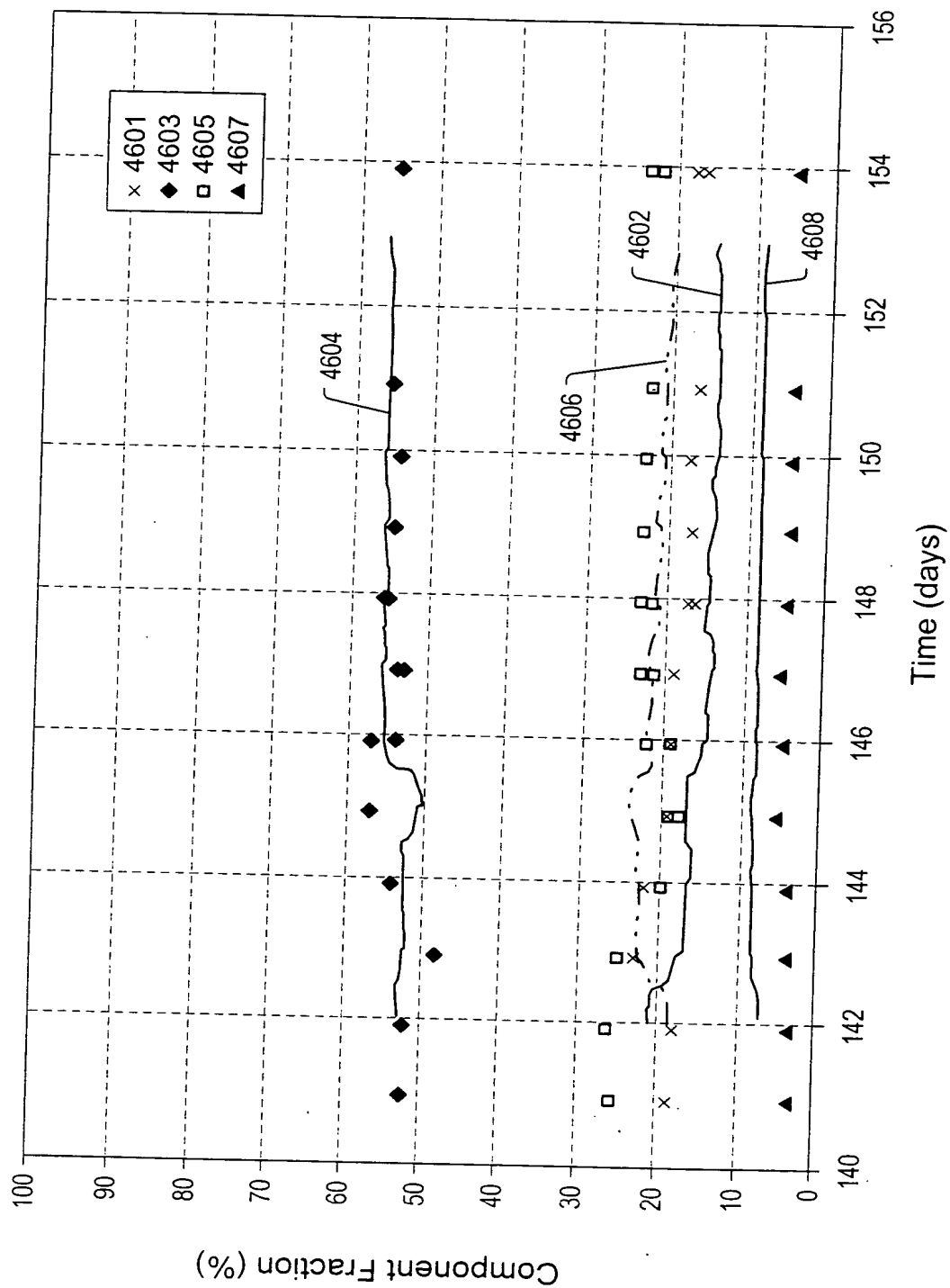


FIG. 129

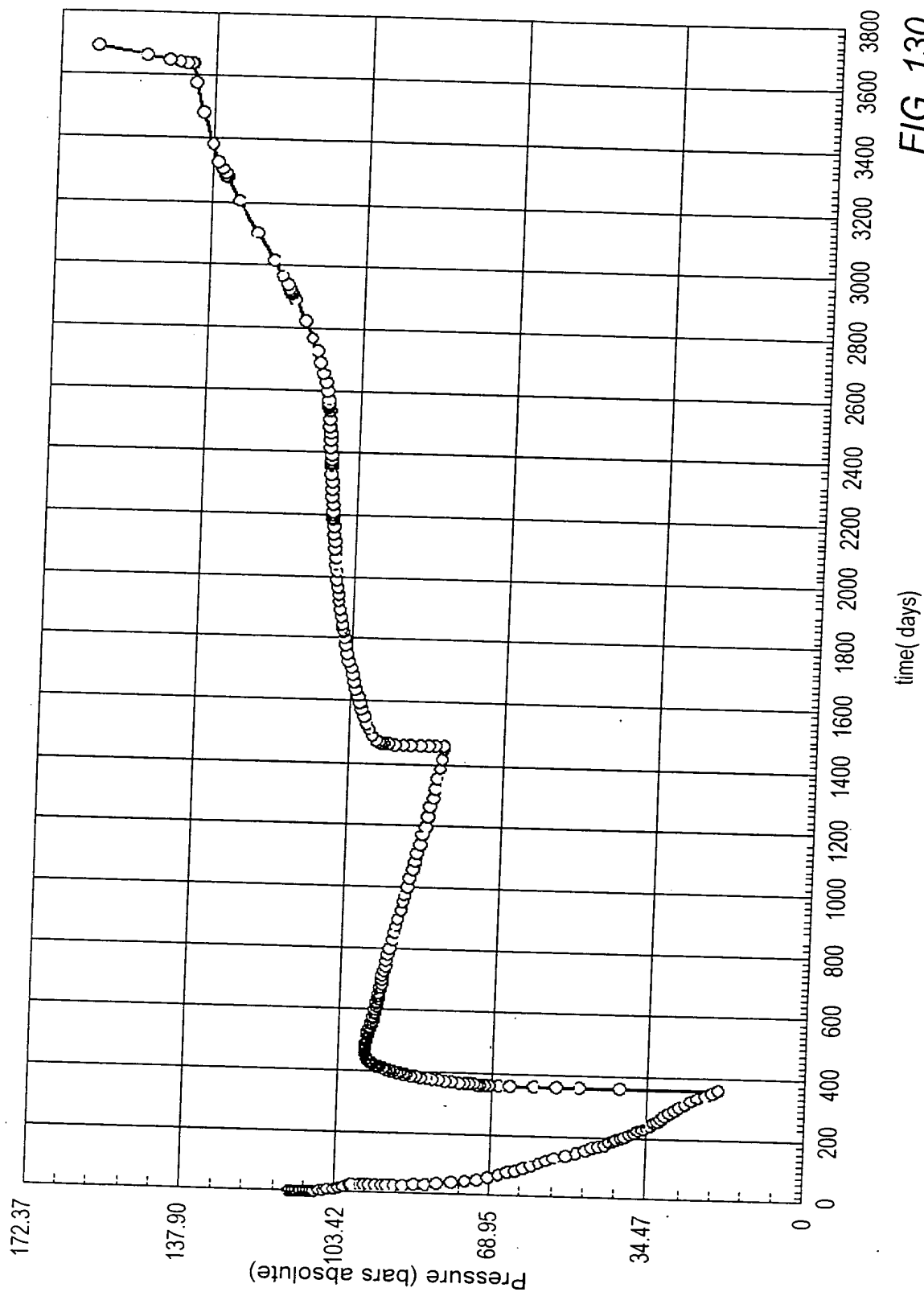


FIG. 130

Flow rate (Mm<sup>3</sup>/day) vs. time (days)

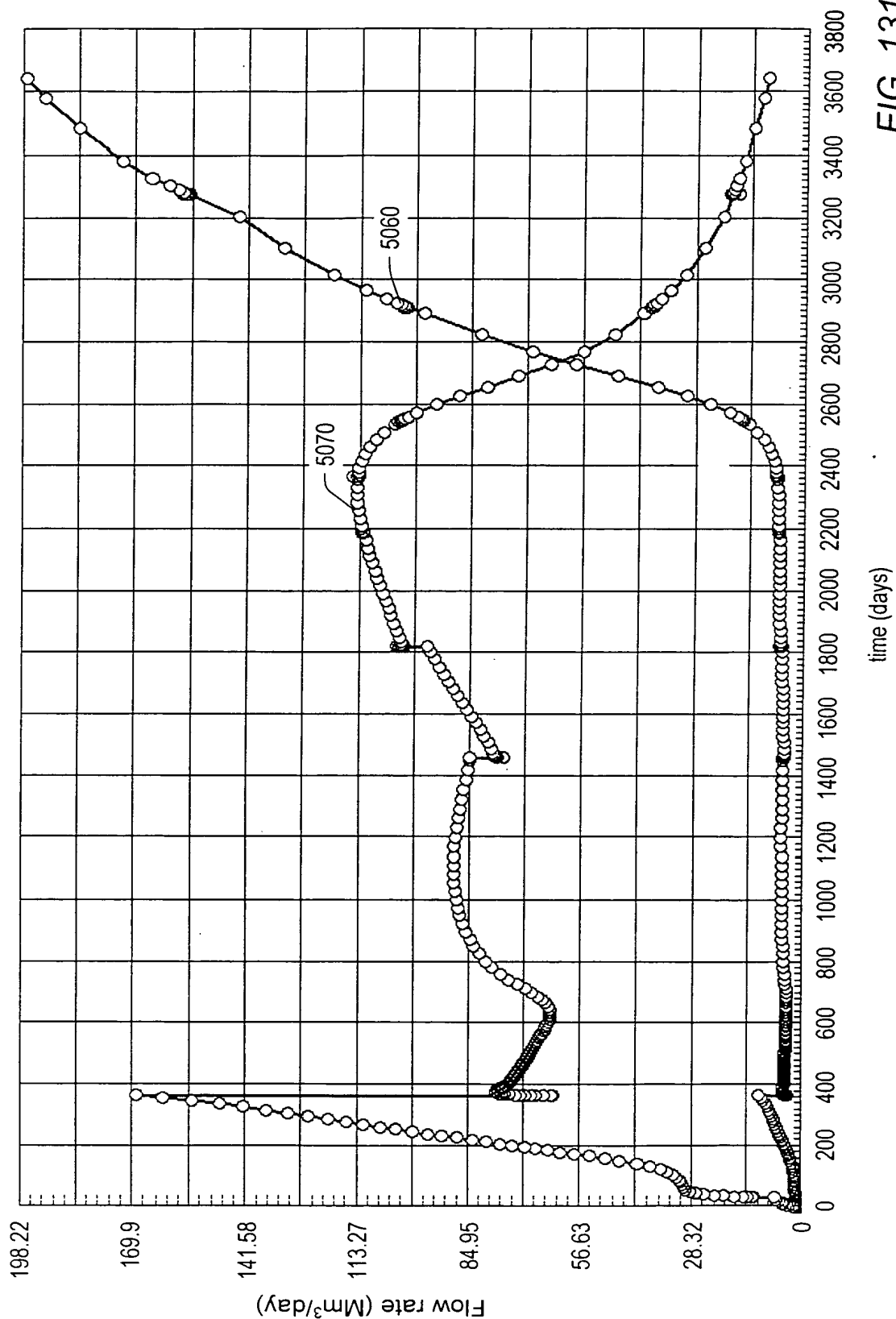


FIG. 131

1000 900 800 700 600 500 400 300 200 100 0

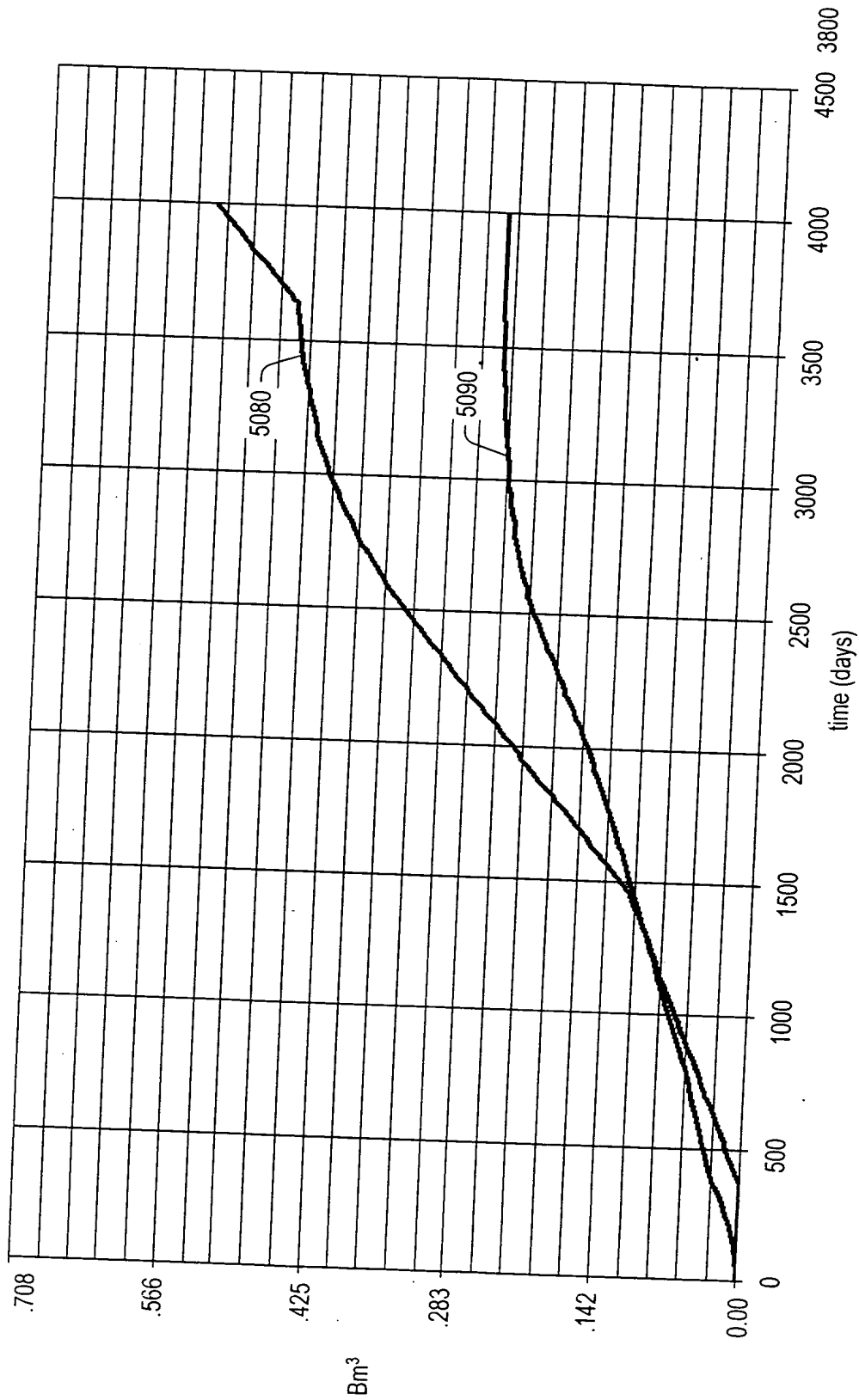


FIG. 132



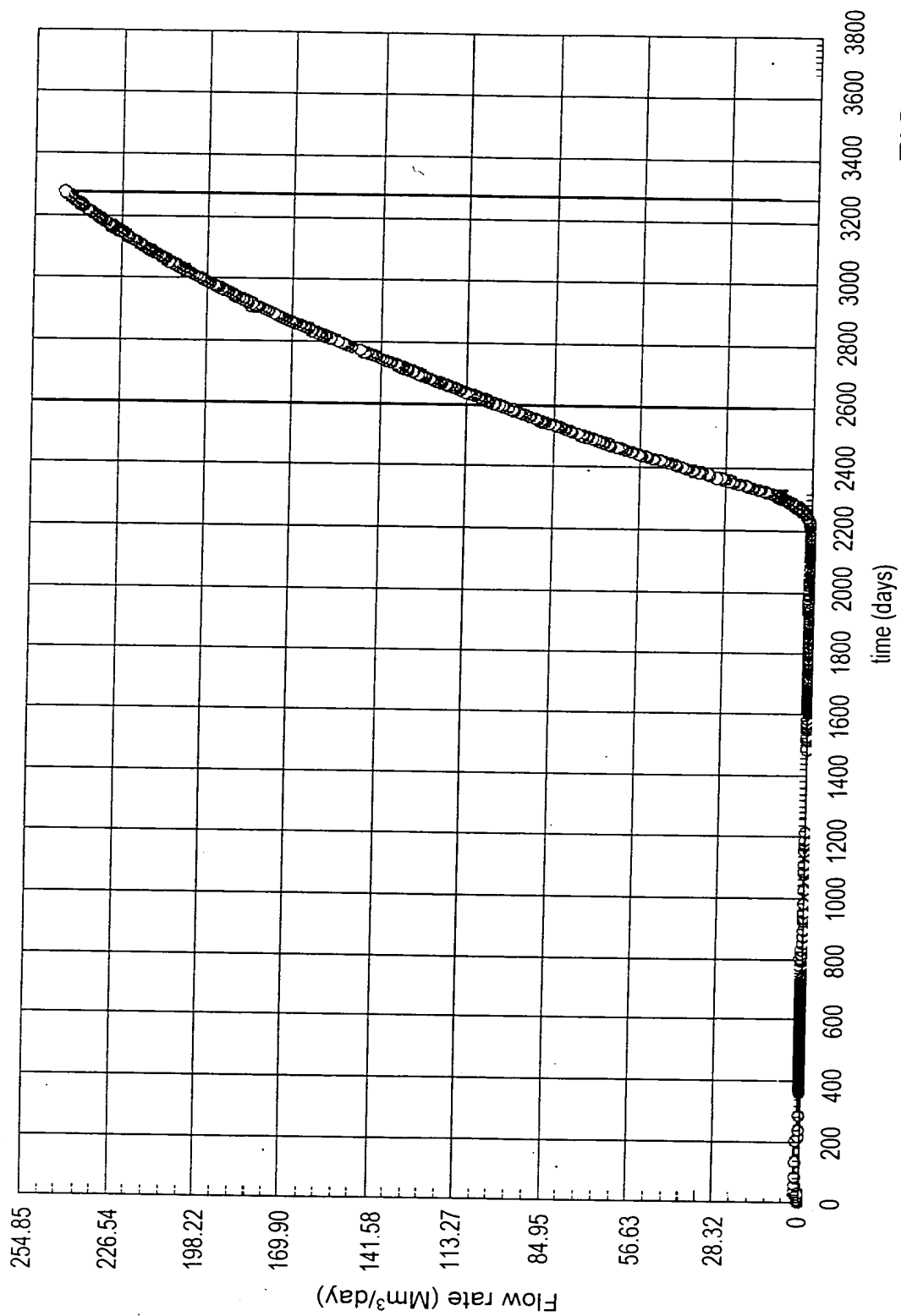


FIG. 134



time (days)	Bm³
0	0
500	142
1000	283
1500	566
2000	283
2500	142
3000	283
3500	566
4000	566
4500	566

FIG. 135